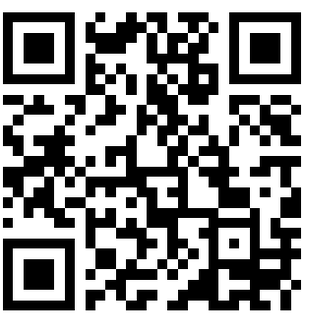
This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

https://books.google.com



Princeton University Library
32101 064640145

The TELEPHONE REVIEW

Digitized by Google

D6515
35T2

Library of

Princeton University.
INDUSTRIAL RELATIONS
SECTION

Digitized by Google

Digitized by Google

Digitized by Google

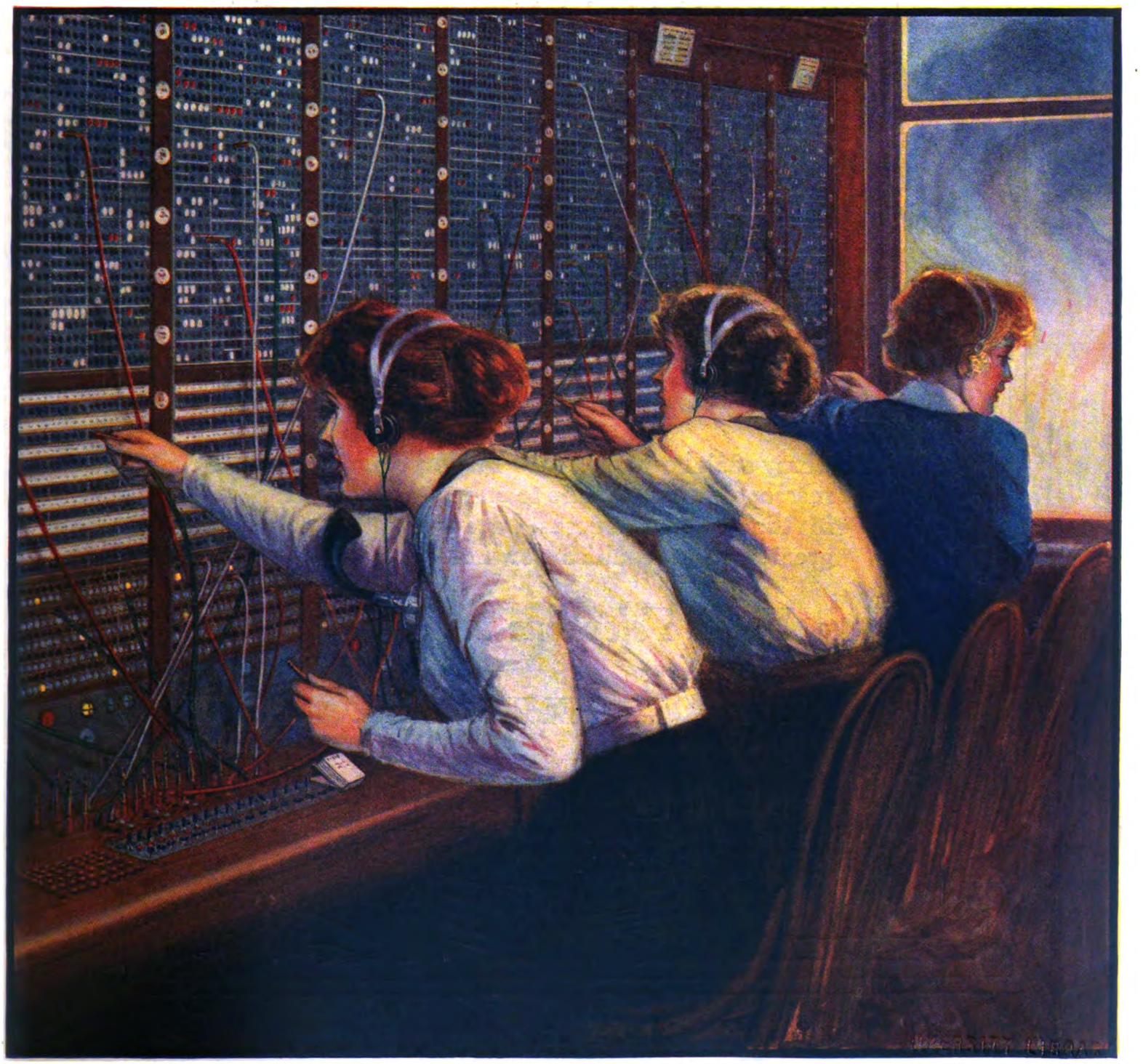
Digitized by Google

Digitized by Google

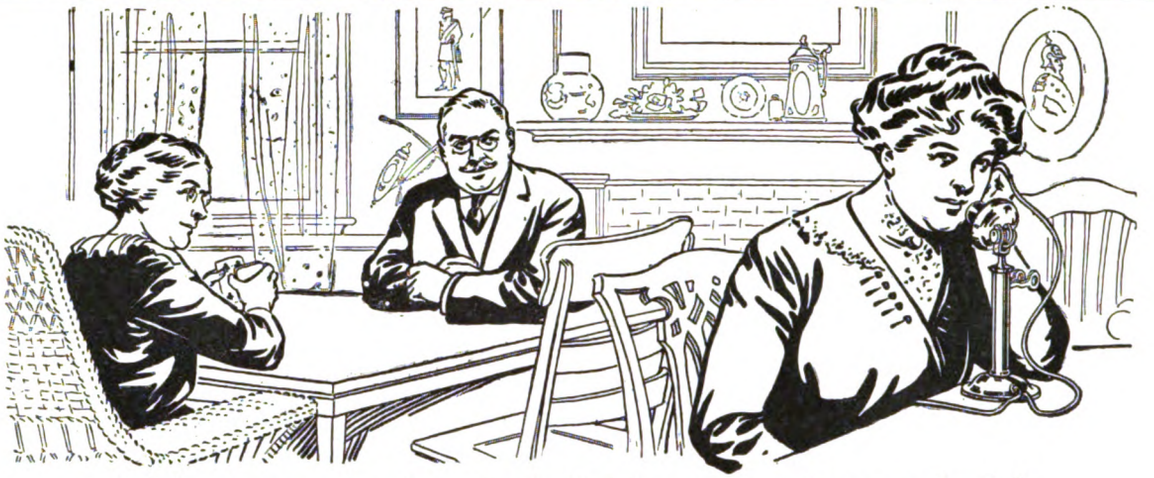
Vol. 4, No. 1

THE TELEPHONE REVIEW

JANUARY, 1913



Digitized by Google



"Can't you run over for an hour or two? We just need one more for a game of cards."

Social Evenings Made Possible —By Telephone

TO all those who enjoy a quiet evening at home with their friends, the **telephone** is a most important part of the home equipment.

The telephone is the quickest means of reaching friends and relatives, a dependable social secretary and a reliable, personal messenger at all times.

Many social evenings are made possible by messages sent over the telephone. Its value in the home increases because it brings greater opportunities for home pleasures.

Have You a Telephone in Your Home?

AMERICAN TELEPHONE & TELEGRAPH CO. — LOCAL AND LONG DISTANCE TELEPHONE — BELL SYSTEM AND ASSOCIATED COMPANIES

NEW YORK TELEPHONE COMPANY

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV — NEW YORK, JANUARY, 1913. — NUMBER 1

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treas.
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor of Receipts
J. A. KENNEDY, Auditor

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor.

VOL. IV. JANUARY, 1913, No. 1

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.

Remittances should be made by check, draft or money order, payable to the New York Telephone Co.

Reproductions of any of our cover designs, for framing, will be sent to any address upon receipt of a 2-cent stamp each.

—Contributions intended for our NEXT issue must be in our office by the 25th of the CURRENT MONTH.

Going Value

A "DEAD ONE" has no going value. "Going" means action, and "value" means worth while.

To possess a going value, therefore, an individual or a concern must be doing something of importance.

This being admitted, we call the most earnest attention of our readers to the remarkable series of articles in this issue regarding the work that has been performed and is in progress.

There is not an employee of this Company who can afford to skip one word, and the copies of this issue should be referred to for information and inspiration as long as the paper upon which they are printed holds together.

Some cynic has said that sentiment has no place in business. Nothing could be more false. The sentiment which pervades the employees of the New York Telephone Co. is the greatest asset which it possesses, for it is that which gives the Company its real

To the Employees of the Western Union Telegraph Company, Western Electric Company and The Bell Telephone System:

THE new plan of benefits for disability due to accidents or sickness, of insurance and of pensions, goes into effect with the new year.

Nearly 200,000 men and women who are now giving their best years to the telephone and telegraph service of the country will henceforth be assured of assistance in the exigencies of life, for which all are not able to provide, and will also be assured of a provision for their declining years.

It is but natural that every employee should desire to assume the normal responsibilities of life and to surround himself and those dependent upon him with the things that make life complete and enjoyable. Unforeseen happenings may make these responsibilities heavy burdens, and whatever may be put aside for the day of misfortune, must in the beginning be small and accumulated slowly. A realization that obligations must be met in times of misfortune, as well as in times of prosperity, has made the need of something besides merely an old age pension appear absolutely vital.

Employers buy and employees sell service. Perfect service is only to be found when fidelity and loyalty are reciprocal in employer and employee. It is this relationship that brings satisfaction and success to both.

The intent and purpose of the employer in establishing a plan of benefits is to give tangible expression to the reciprocity which means faithful and loyal service on the part of the employee, with protection from all the ordinary misfortunes to which he is liable; reciprocity which means mutual regard for one another's interest and welfare.

This is justice, and without justice and sympathetic interest, we cannot hope to do a thoroughly good piece of work.

The American Telephone and Telegraph Company, which centralizes the Associated Companies into one system with one policy for universal service, has considered the interests of all workers and has made a comprehensive plan possible. It is the administrative clearing house and the underwriter of the necessary reserve fund, upon which a general plan must depend.

One illustrative instance of the exercise of these functions has been the unifying of the various interests so that any employee may aspire to work anywhere in the country with uninterrupted benefits, and any company can obtain any man it needs, without prejudice to his welfare.

In behalf of the management of the American Telephone and Telegraph Company, the Western Union Telegraph and Western Electric Companies, let me say that we have a personal interest in our public service, a personal interest in our employees, and a personal interest in our common country. It is our hope that what we have already accomplished has helped the men and women of the Bell System to become happier and better American citizens, and it is our New Year's wish that what has been planned for the future will contribute to their constantly increasing happiness and betterment.

THEO. N. VAIL.

(RECAP) HD6515 .T35T3 V.4

622319

Digitized by Google

going value and which cannot be represented in terms of finance.

If there are any weak members on the pay rolls of this Company, let them read these articles and shuffle off their lethargy. There surely must be only a very few of them, if any, or the achievements of the old year and the outlook for the new would not be possible.

The Spirit of the Telephone

ON THE day before Christmas the Weather Man suddenly followed a season of ideal Indian summer with a twelve-inch blizzard. The snowbound travelers by foot, trolley and train, the stores and all who would stop therein,—everybody, united as with one accord to swamp our wires with business and then showered benisons upon our heads for the blessing of telephone service.

On this one day, the number of telephone calls in the Manhattan-Bronx Division jumped from an average of nearly 2,000,000 to more than 3,000,000, or upwards of 50%. Startling? Yes, but this is not the fact that was most impressive. Greater than these remarkable figures is what they represent,—the spirit of the telephone, as it affects both our operators and the public.

Undaunted by the storm, our operators made their way as best they could from city and suburbs to their exchanges, where they knew the public would need them. There were fewer absentees than usual even on a clear day, while a large number of operators who had the day off voluntarily reported for duty and added their efforts and intelligence to meet the emergency which they foresaw would confront the Company.

There was not a girl among them we are sure, who did not long to make one last visit to the shops before Christmas, and certainly it was with some little pang of regret that those who had the day for a holiday put aside what was rightfully theirs and without even a suggestion that they should do so, hastened to their switchboards.

There was more than a sense of duty or even loyalty in this. There was spontaneous unselfishness and cheerfulness and an *esprit de corps* among the operators which, coming down to the individual, made them as considerate towards each other, the Company and the public, as if the relation had been personal instead of purely business.

This was further evidenced by the speed with which the calls were handled. The active eyes, brains and hands of these young ladies outdistanced electricity! It was the spirit of the telephone!

Have you ever known two employees of the New York Telephone Company to meet in business, at home or on vacation without the telephone being the most absorbing topic of conversation? Even the members of their families, as a rule, are as well versed in telephony as an average employee might be expected to be. That is the spirit of the telephone.

And so it is with the public. This blizzard the day before Christmas sent everybody to the telephone instinctively. Just as the operators knew the public would do this, the public knew the operators would be there to handle their calls. There was doubtless little thought given to it by either, but when it was over, the newspapers took it up and on Christmas Day paid a tribute to the telephone girls that was as generous as it was well deserved.

This spirit does not pervade the Traffic department alone. On another page in this issue we print pictures of the damage done by the storm in the Western Division and tell how the men of the Plant Department responded in a manner which makes a hero of each one of them. It was a battle royal. Every man forced his way from point to point through a howling blizzard, along well nigh impassable roads, and worked as if upon him alone depended the conquest of the elements. For thirty-six hours, without rest or sleep, with only the stimulus of coffee and sandwiches to support their iron nerve, many of them endured hardships few soldiers ever encountered in victory or defeat.

These instances are only typical of the spirit of the telephone that is displayed by employees in all departments when the occasion arises.

The Never Ceasing Service

NO picture can more than suggest the service which is rendered to the public by telephone operators. No description would be adequate to convey an idea of the infinite number of ways in which they perform in the most intelligent and unobtrusive manner their part in the business and social life of the world. This service is seldom rated at its true value.

Some one has said: "Telephone operators in all great catastrophes are called upon to render immediate assistance." A few months ago a booklet appeared which contained newspaper accounts from all parts of the country of how telephone operators had shown their bravery and resourcefulness in protecting the lives and property of citizens.

It is not in times of great catastrophe, however, that their greatest worth is shown, nor are such occasions frequent enough to do more than startlingly emphasize their readiness and resourcefulness when these climaxes suddenly arise. These are climaxes for the subscribers, however, and not for the operators. So far as the operators are concerned, all calls are alike. The girls are always ready, and it is not so much what the calls are about, as their anxiety to give prompt and accurate service that animates them.

One of the dramatic instances which bring these young ladies into prominence from time to time is depicted in our cover this month. In response to the votes of more than 2,200 employees, we present an imaginary scene of a fire raging down the street. The operators at the switchboard are busily answering the calls of excited subscribers and warning others of the impending danger, while at the same time they are handling the ordinary traffic of the office. The action shown in the picture is put there for effect and not because there is any excitement, for there is none.

Of course, the normal traffic of an office does not cease at such times, and we can imagine that among the messages that are passing through the network of wires are also the old, old stories of love, of sympathy, of cheer, the terse and rapid business conversations involving perhaps millions of dollars, idle chat, orders for buying and selling, and every other conversation that is carried on by telephone.

Those Cover Suggestions

JANUARY 25 is the closing date for suggestions to be submitted for our May, 1913, cover.

Nearly 3,000 employees were sufficiently interested to vote in the competition for our cover this month. We hope that every one who has an idea that would look well in a picture will send us a description, and that when the "polls are open" all will vote for the one that they like best.

Digitized by Google

J. R. POLLOCK
Division Commercial Manager

BURCH FORAKER
Division Superintendent of Plant

H. J. SCHULTZ
Division Superintendent of Traffic

Commercial

THE year which has just ended can be considered by the Manhattan-Bronx Division as a successful one, both from the standpoint of development and of efficiency, and the credit for the good work which has been done should be given to the District and Local Agents, the salesmen on the street and the salesmen and other employees in the Local Offices and the Division Office, whose efforts and faithful service have enabled me to secure the results shown.

I will briefly summarize some of them:

Development

Our station estimate for the year was	30,350	stations
We secured for the year a net gain of	32,271	"
The total number of stations in service January 1, 1912, was	339,776	"
The total number of stations in service December 31, 1912, was	369,123	"
An increase of	*29,347	"

*The difference between the net gain in stations secured for 1912 and the number of stations connected for 1912 is due to the fact that some stations are not connected in the same year the contracts are secured.

The number of accounts in the Division January 1, 1912, was	127,689
The number of accounts in the Division December 31, 1912, was	138,073
An increase of	10,384

The public telephone development has progressed satisfactorily in connection with placing the new type of coin boxes, and there were in service on December 31, 8,996 of the prepayment multi-coin boxes (50-A type), an increase for the year of 5,796. Some of these have been placed in the large department stores as auxiliaries to their attended public telephone service. They are installed in booths, grouped in units of one to three, and scattered throughout the stores. They have produced a good revenue, without decreasing the earnings of the public attended service in the stores. This seems to indicate that our plan of conveniently placing the public telephones throughout the stores suggests their use to their patrons and that they have appreciated the convenience.

Prepayment multi-coin box public telephone stations have been placed on 12 steamships of the Cunard Line, these stations being connected for exchange service when the ship is in dock by means of a jack and plug system and flexible cables. We hope to place coin box telephones on the steamships of the International Mercantile Marine Company and the Compagnie Générale Transatlantique.

A contract has been secured for the installation of a private branch exchange system on one of the Hudson River Boats, the "Berkshire," now being built. This contract provides for a total of 450 stations, *i e.*, an extension station in each stateroom and department on the boat. An installation charge was arranged for in connection with this service. This system will provide for intercommunicating service while the boat is in transit and also for exchange service while the boat is at the dock, both at New York and Albany, exchange connections being made by tie lines in flexible cable terminating in jack and plug connected to the private branch exchange system on the pier.

Sales Specialists

During the past year we have continued the sales specializing in connection with developing the telephone systems of the large department stores and have introduced into the financial and congested business sections of the city the sales specialist, whose work consists of studying the telephone requirements of our large private branch exchange subscribers and suggesting to them improvements which enable them to get the maximum service and full business value from their telephone systems. This work has been favorably commented on by some of these subscribers and has enabled us to secure increased growth and additional revenue.

Salesmen's School

The work of educating the selling forces for the four down-state Divisions, which has been under my supervision since the origin of the Salesmen's School, has been continued during the past year, and we have given the instruction course to all salesmen in this area. That the work has been helpful to all of the men is best shown by the better results which we have obtained and their expressions that they have been strengthened and helped to perform their duties in a more satisfactory way. The results have justified our feeling that the School is one of the permanent features of the Commercial Department.

New Offices

A new Local Office has been opened, 2087 Broadway (at 72d street). This office handles the accounts of the Riverside-Schuyler-

Digitized by Google

Columbus subscribers, the Riverside-Schuyler accounts being formerly grouped in the Harlem Local Office, at 127 West 125th street, whereas the Columbus accounts were a part of the Murray Hill Local Office, at 115 West 38th street. This new Local Office to the south of the Riverside-Schuyler section can better serve it, because the trend of travel therefrom is southward. The office has shown great activity since opening, and we are convinced that the location is a proper one for the section served.

A further change was made in the grouping of the Franklin-Worth accounts in the Spring Street Local Office, they formerly being grouped in the Local Office at 15 Dey street, the change being made because we felt that the subscribers in these exchanges could be better served by a Local Office to the north rather than to the south of them. The results since transferring these accounts have shown that the arrangement has made it more convenient for these subscribers to deal with our Local Office.

Efficiency Work

Efficiency work has been continued during the year, and studies have been made which have enabled us to relieve the field agents of a considerable volume of work, which we now handle by telephone and correspondence. This has been demonstrated to be a good arrangement because during the month just preceding the closing of the October issue of the Telephone Directory, when the volume of work was heavy, we were enabled by this plan to secure information and issue orders in less time and at a lower cost per unit than when such matters were given to the field agents for attention.

A plan of more closely supervising the distribution of supplies and advertising literature has resulted in considerable economies.

Collections

An improvement has been made in making collections and we have reduced the losses from poor accounts, this being the result of the adoption of better commercial methods in handling the accounts.

PROSPECTIVE

Manhattan

The Board of Education has signified its intention to place telephones in all of the public schools throughout Greater New York. The Long Island Division has been co-operating with this Division in connection with this work, and we hope to arrange for the contracts during 1913.

Negotiations are in progress for other large installations, such as the new Municipal Building, the new General Post Office, and large structures in this class, which space will not permit me to write about at length.

The Bronx

The completion of the New York, Westchester & Boston Railroad and the final settlement of the rapid transit problem give promise of a greater development in the Bronx than has yet been seen, notwithstanding that the growth in the Bronx during the past year has been greater than in previous years, namely, 5,729 stations. Quick transit will open up vast sections of unoccupied land, and the next five years may be depended upon to give us a great increase in business. We consider the Bronx at the present time as a "Rosebud" in so far as telephone development is concerned.

The entire organization of this Division promises—and, that means fulfillment—that its work for 1913 will be better than for previous years and that the public will be served in a manner thoroughly satisfactory to them, so that as the business grows they will understand that efficiency keeps pace with it.

J. R. Pollock,
Division Commercial Manager.

December, 1912.

Plant

During the year 1912 the work handled by the various branches of the New York Division Plant Department (comprising Manhattan-Bronx and Westchester) has, with few exceptions, compared favorably with the average normal conditions of the past few years.

During the year a gross total of 76,947 stations were placed in Manhattan and Bronx, giving a net station gain for the year of 27,919, as compared with 28,187 in 1911 and 30,659 in 1910.

The gross stations placed in the Westchester District were 8,480, effecting the net gain of 3,067 stations, as compared with 3,948 in 1911, so that the station gain throughout the territory is somewhat less than in the past two years.

In order to care for this movement in stations in Manhattan and Bronx a total of 142,751 contract orders and 86,253 plant orders, or a grand total of 229,004 orders, were executed, as compared with 158,847 contract and plant orders issued during the year 1911. Likewise, in the Westchester District, 22,033 contract orders and 7,500 plant orders, or a total of 29,533 orders, were executed during the year 1912, making a grand total of 258,537 orders issued and executed in the entire Division during the year 1912.

The installation of the multi-coin prepayment instruments has been particularly heavy during the past year, a total of 5,906 having been installed. This, however, does not represent a net station gain, as 3,600 of these new type instruments superseded the old type nickel machines, leaving a net gain of approximately only 2,300 stations.

The large amount of building operations in New York City has made house cable work one of the principal features of the year; the jobs necessary in several of the newer buildings being extraordinarily heavy. The cases of greatest interest and involving the most effort on the part of the various branches of the Department were the installations in the Bankers' Trust, Woolworth, and McAlpin Hotel buildings. A brief description of these three installations follows:

Bankers' Trust

This is a 31-story office building, and was ready for occupancy about May 1st, at which time 90 per cent. of the entire building was rented, and by May 15th thirty-five of the large banking and brokerage concerns in the city had moved into the building, making it necessary to transfer the service from the old to the new address without interruption and out of business hours, as the subscribers in each case started the physical moving at the close of the market one day and demanded that service be established at the new location in the Bankers' Trust Building at the hour of the opening of the market on the following day. This involved a very large amount of preliminary work, especially as in each case additional and much more complicated plans of wiring were installed in the Bankers' Trust Building than were in service at the various subscribers' old addresses.

The entire 18th floor was assigned to this Company by the building management for use as a foreman's office, in which a complete storeroom for switchboards, apparatus, and material was established and a locker room for the installers and other workmen on the job.

In order to deliver the material nec-

Digitized by Google

essary for the installations in this one building, an automobile truck was kept in constant service between the Central Storeroom and the Bankers' Trust Building for two whole days and a part of one night.

A total of thirty-three private-branch exchange switchboards were installed, varying in capacity from 40-line to 180-line, and six of the boards being 2-position. Connecting with the switchboards were 421 extension stations on the premises, 142 Central Office lines, 39 tie lines, 87 private lines, and 32 extension stations off the premises. This does not include the private line monitors, spring jack telegraph switchboards, System "A" speaking tube stations, L. D. or Morse loops, etc., which were also installed. A total of 79,710 feet of inside wire was run in addition to the extensive house cable layout which was necessary.

It was only on account of the co-operation between the Commercial Department and various branches of the Division Plant Department that it was possible to accomplish this work within the very short time allowed.

Woolworth Building

The Woolworth Building is 55 stories in height and contains a renting area of 490,000 square feet, or approximately 11¼ acres. To care for the telephone service in this building it was necessary to have a new subway built on Park Place. Two 600-pair cables were extended direct from the Rector Exchange through this subway into a Terminal Room located in the sub-basement of the Woolworth Building.

To care for the interior wiring, three rising points were established for extending four 400-pair, one 300-pair, and one 600-pair cables through the building, with several terminals on each floor.

In the Terminal Room the exchange and house cables are so spliced as to permit feeder pairs being used on the floors as well as on a cross-connecting frame in the basement.

One pair of conductors is provided for each 195 square feet of renting space.

The total length of the house cable is 5,450 feet, weighing 20,223 pounds, or approximately 10 tons; the weight of the copper alone being between 2 and 3 tons.

The total number of conductor feet in the house cable system is 1,215,650, or considerably over 230 miles.

McAlpin Hotel

A 16-position multiple type lamp switchboard, with 80 Central Office lines, 1,800 extension stations, and 120 house service lines, has been installed, in connection with which it was necessary to install a 1-position Chief Operator's desk having 16 listening-in circuits to the switchboard. The switchboard and Chief Operator's desk are equipped for telantograph service. There are also a standard Wire Chief's desk, a main distributing frame equipped for 2,828 lines, a relay rack, a 175-ampere charging machine, a 75-ampere Watt ringing machine, and a 560-ampere storage battery.

In addition to the main switchboard, which will provide for an extension station in each one of the 1,700 guest rooms as well as the various stations necessary for the hotel management. a 2-position standard pay station switchboard and 15 folding-door booths have been installed on the first floor.

Other Construction Work

The new Murray Hill Building has been completed and the new Central Office was cut into service on December 28, 1912. This office relieves Bryant and Madison Square districts and the Greeley Board, and opened with approximately 4,000 lines.

Incident to the opening of this office it was necessary to run 55,000 feet of 600-pair cable for distributing purposes.

There was also run in Manhattan and Bronx about 31 miles of 600- and 300-pair cable to care for trunk service, so that the new office will have direct trunk circuits to every exchange in Manhattan, Bronx, and Brooklyn.

In the latter part of 1912, the Signal Corps of the U. S. Army prepared specifications covering the construction and installation of the cable system on Governors Island. This Company, as a principal user of the plant, was asked to bid for the contract, and, as lowest bidder, received it.

The system on the Island consists of a 2-position common battery board, with trunk connections to the Broad Central Office and approximately 90 extension stations located in various buildings on the Island.

The old wiring system consisted of lead-covered cables buried, which had become inadequate and very unsatisfactory.

The new work involved digging and back-filling approximately 12,000 feet of drainage, building 6,000 feet of 2-duct subway, 2,700 feet of single-duct subsidiaries, 24 brick manholes, and running, splicing, and testing approximately 11,100 feet of lead-covered cable varying in size from 6- to 152-pair.

The terms of the contract limited the time of completion to 120 days. The contract was awarded in the early part of October, and the work will undoubtedly be finished on time despite difficulties encountered.

A new common battery switchboard was opened in Pleasantville, and a heavy gauge toll cable of 183 pairs extended from White Plains to Pleasantville. This is a loaded quad cable 35,000 feet in length.

In Rockland County four new magneto Central Offices—Pearl River, Nanuet, Congers, and New City—have been opened, in territories where there were practically no telephone facilities. The distribution in these districts is almost entirely aerial cable, approximately 89,500 feet being run and 1,000 poles placed.

BURCH FORAKER,
Division Superintendent of Plant.
December, 1912.

Traffic

DURING the year 1912 no great changes have taken place in the status—physical or otherwise—of the Manhattan and Bronx Division. The period has not been one of radical changes, but rather one of steady, regular growth, during which the efforts of all concerned have been devoted to perfecting and strengthening the organization and to developing to the greatest possible extent the resources of the operating staff.

These figures give an idea of the growth of the Division during the year:

	NOVEMBER 1, 1911	NOVEMBER 1, 1912	% of INCREASE
Lines	149,074	158,753	6.5
Stations	334,198	361,277	8.2
Originating Calls	1,496,860	1,745,577	16.6

The number of complaints for the year shows a substantial decrease as compared with the number received last year, notwithstanding the fact that 1912 has been a year of unusual political and business activity.

Progress in the formulation and codification of the operating rules has assisted greatly and has enabled us to lay down more advantageous lines of operating routine. This, of course, has brought about a higher degree of uniformity in our work. The constant attention of the Central Office staff to the elimination of various sources of irregularity and error has, of course, been largely, if not wholly, instrumental in making the rules effective.

In the Operators' School also the work has been developed and strength-

Digitized by Google

ened by the work on the rules, so that the student operator, graduating from the school to-day, is better equipped than the student operator of a year ago.

The only change in the physical aspect of the Division has been the renaming of the Murray Hill office as Greeley, in order to have the former designation free and available for a new exchange which was opened on December 28. This was done to make the necessary provisions for growth in the present Bryant and Madison Square offices.

In our work of the year I feel that the force as a whole is to be heartily commended for its loyal co-operation and assistance in developing the best interests of the company.

H. J. SCHULTZ,
Division Superintendent of Traffic.

December, 1912.

Steamer "St. Paul" Grounded Off Long Branch

THE accompanying photograph shows the transatlantic liner "St. Paul" grounded off Long Branch seventeen years ago this month.

W. D. Martin is up in the cross trees on the forward mast. He was the local manager of the N. Y. & N. J. Telephone Company at that time. Mr. Martin conceived the idea of connecting the vessel via telephone with the outside world and sent a message to this effect to Capt. John C. Jamison, of the "St. Paul," by Capt. Wardell of the Board of Underwriters of the Maritime Exchange, who boarded the stranded liner by way of the breeches buoy, a line having previously been shot across the deck by the Life Savers.

The word to establish service was received by Mr. Martin at 11 o'clock Sunday morning, January 26, and at 2:45 P. M. the line was in service.

Twisted pair 1,000 feet long was fastened on a pole on shore, which was erected for the purpose, and the wire was carried to the vessel in a fisherman's boat, six expert oarsmen being necessary to force the boat over the waves, which were running high. Mr. Martin was the first man from the Company to go aboard the "St. Paul."

After the line was carried to the steamer, it became entangled with a jetty and Mr. Martin, through a megaphone, called to Fred. Reilly and William Van Brunt, two of his men, to swim out and loosen it. This they did, and it was an heroic and extremely cold task. At the invitation of Captain Jamison, all the telephone employees who had assisted in the work enjoyed an elaborate dinner on board.

After the telephone was placed in position, pay station service was established, with Mr. Reilly (at present a local lineman for the New York Telephone Company) in charge.

The passengers were keen to appreciate the convenience of having the telephone on board and kept the line busy night and day telephoning to all parts of the country.

The telephone number assigned to the "St. Paul" was Atlantic Ocean No. 1.

The boat remained stranded about six weeks and proved an attraction to thousands of visitors.

When the vessel floated out to sea again, Mr. Reilly was still on board and had 3,000 additional feet of twisted pair which he played out in case of mishap. When the steamer reached New York, it was a struggle to recover the instrument, as souvenir seekers were anxious to destroy the telephone for mementoes. It was finally saved and later placed by request in the residence of Mr. Daniel Doran, a Long Branch newspaper man.

The wire was later used by the manufacturer as an advertisement.

W. H. HALL,
Local Agent, Long Branch.

[IT is rather surprising that this remarkable demonstration of the value of Bell telephone service aboard the "St. Paul" seventeen years ago did not result in its retention on that steamer and its introduction on all others at that time.

The "Lusitania," "Mauretania" and other modern transatlantic steamers are equipped for service while at their piers in New York, however, and the splendid new "Berkshire," now being built for Hudson River traffic, will have 450 instruments, one in each stateroom and department of the boat, which will be connected with our exchanges while the steamer is in dock, both at Albany and New York.—Editor.]

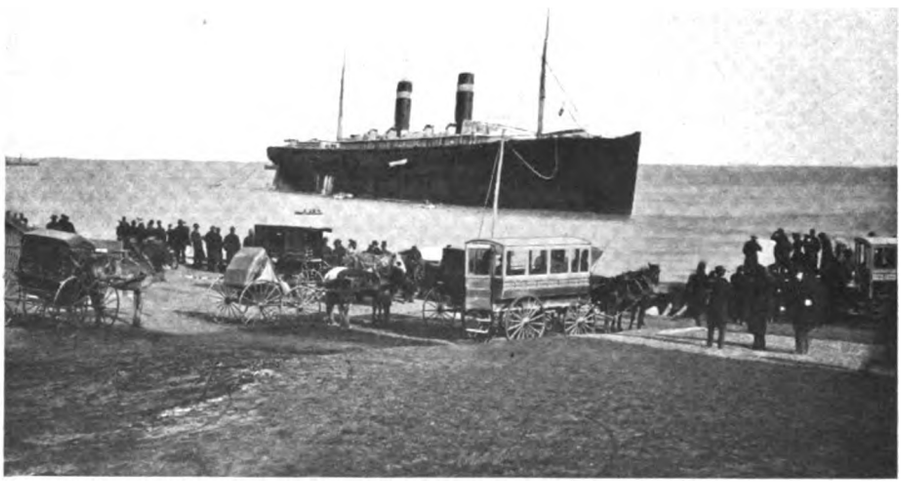
He Got What He Wanted

He had been graduated with the class of 1912 from the Massachusetts Institute of Technology and one month's experience of the outside world led him to walk into a large business office, ask for the boss, make a little speech and offer his services. The head of the firm listened and looked the young man over casually.

"I have no position to offer you," he said.

"You misunderstand, sir," responded the young man. "What I want is a job."

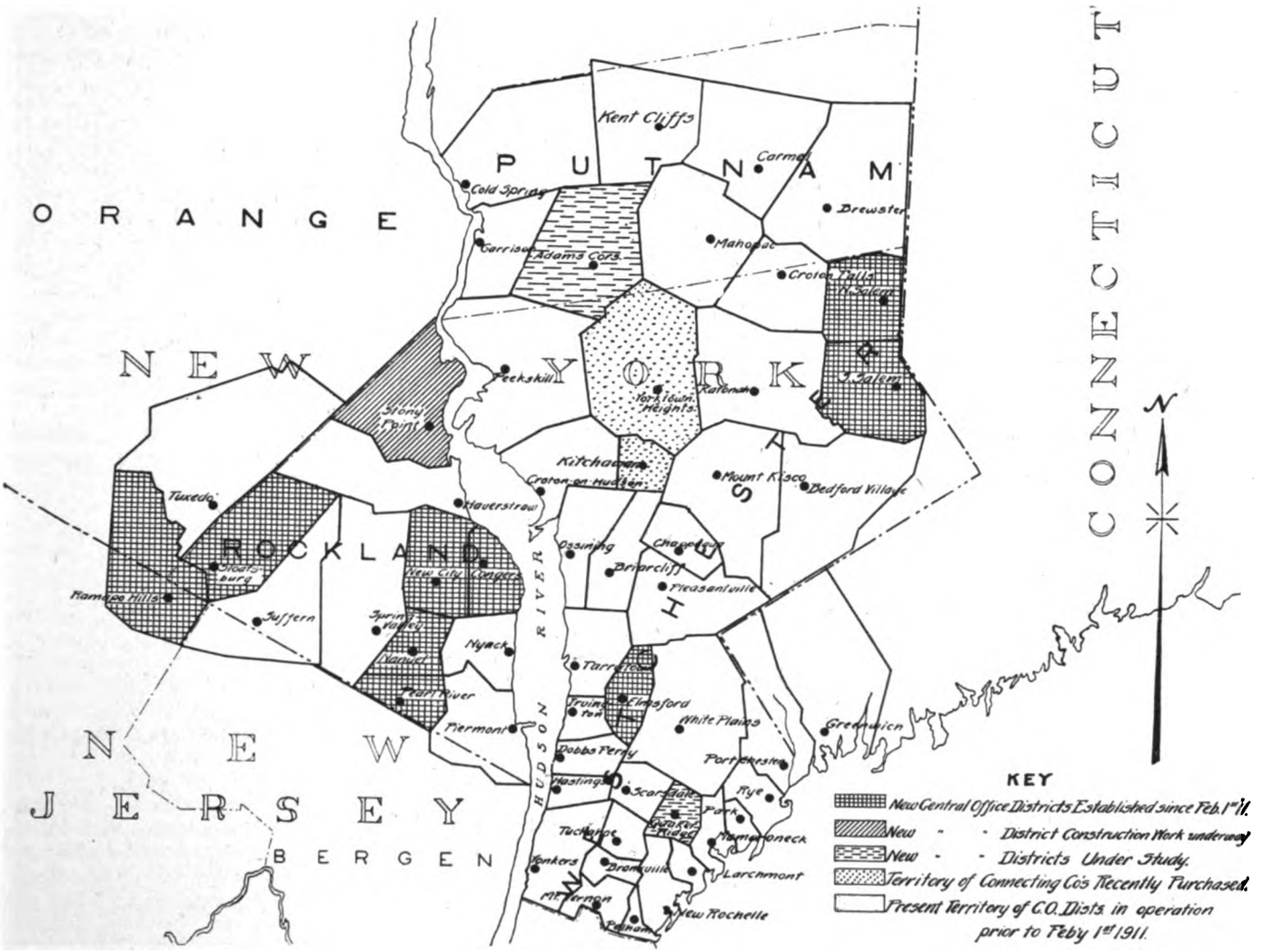
Two minutes later he was at work.—*Exchange.*



SEVENTEEN YEARS AGO.

The "St. Paul" stranded off Long Branch January 26, 1896. Passengers were enabled to communicate with relatives and friends, however, as a Bell Telephone was installed on board immediately.

Digitized by Google



INTENSIVE TELEPHONE FARMING.

Westchester Division

H. G. KERR
Division Commercial Manager

BURCH FORAKER
Division Superintendent of Plant

G. L. YATES
Division Superintendent of Traffic

Commercial

THE past year has been somewhat of an eventful one for the Westchester Division Commercial Department, inasmuch as the establishing of four central office districts on December 1 practically marked the completion of the Westchester central office development plans that the department had mapped out for itself about two years ago.

Of the eleven central office districts that were scheduled for study at that time, the following have been established: Elmsford, North Salem and South Salem in Westchester County; Sloatsburg, Nanuet, Pearl River, New City, Congers and Ramapo Hills in Rockland and Orange Counties. The opening of Stony Point (Rockland County) Exchange is now in the hands of the Plant Department, and completion is expected early in the coming spring. In addition to the above, commercial studies are now being made for better developing the sections in and around Adams Corners and Quaker Ridge (Westchester County).

Intensive Telephone Farming

A glance at the accompanying map shows the extent of this recent development. It illustrates the broad policy of the Telephone Company in providing facilities that will enable the residents of every community to enjoy the convenience of telephone service at reasonable rates. The acquisition in June of the Kitchawan Telephone Company's system resulted in the Kitchawan territory being made a part of the Briarcliff Central Office District. Lower toll rates to outside points were made applicable to the former Kitchawan subscribers, and a large number of new subscribers were secured in the Kitchawan territory. Many changes have been made in central office district boundaries and mileage zones, thus suiting our charges for service to the character and extent of residential development which is so constantly changing in suburban districts.

The new central office district of "Woodlawn" was established on June 1, 1912. This new district covers the territory where the two cities, Yonkers and Mt. Vernon, in Westchester County, merge with New York City (Bronx), and the rapid residential development in this section has taken place without regard to the es-

Digitized by Google

tablished city lines. The Telephone Company, therefore, in establishing the Woodlawn District has recognized these conditions and brought together in the Woodlawn Central Office District the communities which are so closely related. The new area opened with about 250 subscribers as evidence of public appreciation of the method adopted by the Company for serving this section. Yonkers and Mt. Vernon and the Bronx in general were also benefited by the opening of this new area.

Coin Boxes

The recent installation of about 650 new 50-A coin boxes has been an important matter for the Division. This means that the Westchester Division will shortly have about 900 coin boxes in operation, as compared with about 225 in operation a year ago. In connection with the Western Union joint service matters, Westchester was able to report on the first of the past year that every one of its Commercial offices was a joint Telephone-Telegraph office (10-A). The recent opening of the new 10-A office at Dobbs Ferry made it possible to serve better the telegraph needs of the three important communities of Dobbs Ferry, Irvington and Hastings. This made the twelfth joint 10-A office in the Division. Early in the summer of 1912 all of the Western Union messengers connected with joint 10-A offices were neatly uniformed and where practicable were equipped with bicycles, resulting in a neat appearing, businesslike and efficient corps of messenger boys throughout the Division.

A study has been made for establishing large display public telephone signs along the Hudson and Long Island Sound shores for advertising public telephone facilities to passing craft. An experimental sign for this purpose described in the December issue of *The* TELEPHONE REVIEW was recently placed at Tarrytown, with the result that steps will be taken to develop further these facilities wherever practicable at such locations as ferry boat landings, gasoline depots, public docks, etc.

H. G. KERR,
Division Commercial Manager.
December, 1912.

Traffic

TELEPHONICALLY the Westchester Division is the smallest of the seven divisions of the New York Telephone Company. It lies north of the Borough of The Bronx on the east bank of the Hudson River and north of the State of New Jersey on the west bank of the Hudson. Its territory is composed of Westchester, Putnam, and Rockland Counties and part of Orange County in New York State and part of Fairfield County in Connecticut.

On January 1, 1912, the Westchester Division had a total of 20,294 subscribers' lines and 37,017 stations, and on January 1, 1913, a total of about 22,544 lines and 40,220 stations, a gain for the year of 11.8 per cent. and 8.7 per cent., respectively.

The volume of traffic handled daily for 1912 shows an increase of 12.3 per cent. over 1911. There are 434 employees on the pay rolls at present, as against 407 on January 1, 1912, an increase of 6.6 per cent. All operators engaged at Central Offices within a radius of 40 miles of New York City are sent to the Manhattan training school for the usual course of instruction. This has been the practice for the past two years and has resulted in raising the tone of the force in that they start with right methods and are thus enabled to do more work and feel less fatigue than when the former method of training them locally was in vogue.

The centralization of division clerical work at Mt. Vernon and of complaint desk work at White Plains during the past two years has been followed by operating economies and increased efficiency. This also applies to the centralization of information bureaus. Approval for further centralization of information bureaus has recently been obtained, which should show further economies with improvement in service by a consolidation of these information bureaus at Mt. Vernon for the southern group of Westchester Division offices. Economies were also effected at many of the smaller offices by arranging information desk lines so they could be operated from the switchboard during the slack hours by combination "A" and information operators, also by combination positions for handling both "A" and "B" work during slack hours.

Below is given the number of switchboards of the various classes on January 1, 1912, and January 1, 1913:

	Company Relay	Operated Magneto
January 1, 1912....	17	12
January 1, 1913....	19	10

During 1912 two common battery No. 10 relay switchboards replaced magneto boards at Scarsdale and at Pleasantville. New magneto boards, with selective party line ringing replaced old boards at Mahopac and Carmel. A new Central Office district and magneto switchboard was cut into service at Croton Falls, also a new exchange area known as North Salem and operated from Brewster was established to serve the communities of North Salem and Salem Center. The Connecting Company switchboard at Kitchawan was discontinued and their subscribers now receive service from Briarcliff. The Yorktown connecting company has been purchased and will be operated by this company early in 1913.

On December 1st, 1912, four new agency and semi-agency offices were opened simultaneously in Rockland County, located at Congers, Nanuet, New City and Pearl River, the switchboards being of the non-multiple magneto type equipped for selective ringing. Additions have been made to the switchboards at Yonkers, Mt. Vernon, New Rochelle, Suffern and Garrison during the year.

Long Distance traffic for the most part is handled from the White Plains long distance board and a considerable extension of the single ticket operating method has had the effect of reducing the long distance loads and improving the character of the service without reaction on the revenue.

	Agency Operated	Total Switchboards	Theoretical Exchanges	Connecting Company's Exchange
January 1, 1912....	5	34	9	3
January 1, 1913....	10	39	9	2

During the year changes in the method of handling local "busy" calls have been put into effect which has resulted in an improvement to the service and probably greater satisfaction to our patrons in the suburban districts. There was a large extension of prepayment coin-box service, increased from about 150 to 600 stations during the year.

The year 1913 promises continued satisfactory development in the Westchester Division, an important factor being the new electric railroad of the New York, Westchester and Boston Railway Company which has already created much activity in real estate in the comparatively unsettled section through which the road has been constructed.

G. L. YATES,
Division Superintendent of Traffic.
December, 1912.

Digitized by Google

H. W. DRAKE
Division Commercial Manager

P. D. HONEYMAN
Division Superintendent of Plant

R. H. BOGGS
Division Superintendent of Traffic

Commercial

CONSTITUTING an area of 1,400 square miles with a population of 2,600,000, Long Island embraces all types of development, including the City of Brooklyn, with a population of 1,814,000 people, the fast growing suburban section of Queens and Nassau Counties, and the rural development in Suffolk County.

Largest Station Growth

During the past few years considerable attention has been given to the station growth, but the year of 1912 has marked the most rapid telephone development in the Long Island Division. Due to the full introduction of the systematic selling plan and the better direction of effort, the number of stations has been increased to 126,460 in service on December 31, with a net gain for the year in business accepted of 17,405 stations. This gain compares with 13,119 stations in 1911 and 11,125 stations in 1910, and constitutes a 15.8 per cent growth for the year. Particular mention is to be made of the telephone growth in the Jamaica Local Office area (Queens), where a 28.3 per cent increase in the number of stations was realized.

In carrying on the routine branches of the work and in the daily performance of their duties, splendid results have been shown by the District and Local Offices in collections. This work has been carried on more efficiently, and the results are reflected in the general statements of the Division.

Marked progress has been made in the handling of the 90,000 accounts, with the result that the amount lost through bad debts has been materially reduced. At this writing the showing of the Long Island Division has not been surpassed in this respect by any Division in the State. To make this possible has required very close supervision and vigilance on the part of the supervisory forces carrying on the collection work.

During the year improvements have been made in the locations and arrangements of the District and Local Offices. Larger and better quarters have been provided for the Williamsburg and Bedford District Offices, and also for the Hempstead and Flushing Local Offices. The South District Office has been refitted and renovated, and the Far Rockaway Local Office enlarged. A new Local Office has been opened at Southampton, and plans are under way for additional Local Offices at Riverhead and Huntington.

Joint Offices

During the year ten Joint Western Union Offices have been established, some of them at points not heretofore covered by independent branch telegraph offices. It is to be noted that the telegraph business has increased at these points and the telegraph work is being carried on smoothly. The telephone as a supplement to the telegraph in filing telegrams seems to have come more and more into popular favor, as is witnessed by the 20.000 telegrams filed by telephone and billed on subscribers' accounts in December, as compared with the 10,000 telegrams so billed at the beginning of the year 1912.

Particular mention should be made of the excellent work done by the field forces in the standardization of subscribers' contracts under uniform rate schedules. Seven new exchange areas have been established in 1912, including three actual central offices, which has involved considerable commercial work to carry out the plans for these changes.

There has been a reduction in the number of complaints on commercial matters. This is largely due to the close supervision given by the District and Local Agents to their territories and their efforts to promote a better understanding between the Company and the public.

Future Development

In carrying on the work of the Commercial Department for a year which has been marked by such rapid telephone development, it has been gratifying to note the willing response of the employees in this Department to the demands of the situation as well as the increased spirit of loyalty to the Company's interests. This has worked largely for the success of the Commercial Department for the year 1912, and there is every assurance that the year 1913 will exceed our realizations for the year just passed. To handle the volume of business which has been secured in 1912, in addition to our daily work, has required close co-operation with the Plant, Traffic and Auditing Departments, and the support given by these Departments has done much to aid the Commercial Department in its efforts.

H. W. DRAKE,
Division Commercial Manager.
December, 1912.

Digitized by Google

Plant

A BRIEF review of the Plant work in the Long Island Division during 1912 can best be given by referring to each of the four counties of Long Island. Each of these counties has its peculiarities in respect to the character of the work done.

Kings County

In Kings County, which comprises the Borough of Brooklyn, there is an entirely urban condition. The net growth of stations totals about 10,000, fairly well distributed, and the year's plant additions have been general throughout the Borough. The subway system has been extended more than in any previous year. Part of this activity was due to the large number of streets which have been repaved, making it advisable to hasten the work in some instances a year or two to save paving expense. Most of the new subways were constructed, however, to relieve congested overhead plant in well populated sections. There has been a large amount of block work done, a great deal of which was in blocks along these new subways. In the detached residence portion of the City this block work has been of the interior pole distributing type and a feature has been the increased use of concrete poles arranged for the joint occupancy of the electric light and telephone companies. There has been an unusual number of apartment houses erected in Brooklyn during the past year and house cable work in consequence has been unusually active.

Additions to central office switchboards have been installed in a number of exchanges, the largest addition being to the Flatbush board. This exchange district is growing very rapidly, the year's increase in stations having been about 1,300, with a total of 10,315 stations. A private branch exchange of note installed during the year is the five position one of the Long Island Railroad specially equipped for train despatching.

Queens County

Queens County, which comprises the Borough of Queens, is developing at a greater ratio than any other of the Long Island counties. In this county are found all types of development, from the large manufacturing centers in Long Island City to the summer tent dweller on the Rockaway sands, and every phase of the Plant problem has had to be met. Some of the largest items of work completed during the year are a subway and cable connecting College Point with Flushing, a subway and cable replacing the congested aerial cables from Bayside to Flushing, a subway from Jamaica extending about three miles toward the Rockaways, carrying a toll cable which is extended aerially the balance of the way, and the completion of a trunk and subscriber subway from East New York to Richmond Hill. A high grade suburban development, Forest Hills Gardens, financed by the Sage Foundation Homes Company, has been provided with a complete subway system and concrete block poles arranged for joint use with the electric light company in nearly one hundred blocks. Large additions to the aerial cable distributing plant have been made in practically all parts of the territory. The net growth of stations in this county during the year was about 3,700.

Nassau County

Nassau County is within the commuting zone and is almost entirely a residential section, marked by a large number of real estate developments, many large estates and numerous flourishing towns and villages. During the year extensive additions have been made to the already comprehensive system of electrification of the Long Island Railroad and in consequence the building activities have been great. Previous to 1912 the plant throughout Nassau County was fairly comprehensive and comparatively little additional work was necessary to take care of the rapid growth. The principal plant work completed during the year was the extending of a composite cable, with the heavy gauge wires duplexed, to Long Beach, where the building was particularly active; the enlarging of the aerial plant in Glen Cove and the building of a subway between Glen Cove and Sea Cliff. A new common battery switchboard was installed at Roslyn, replacing a magneto board. This switchboard serves in addition to Roslyn the Wheatley Hills exchange area, which is important on account of its number of well known and wealthy residents. The net additions to stations during the year were about 2,000.

Suffolk County

Suffolk County is a farming and fishing section, characterized by a large number of summer resorts. During 1912 the plant necessary to care for the territory has been carried to completion, plant having been extended or completed in Amityville, Babylon, Bay Shore, Islip, Sayville, Bayport, Smithtown, St. James, Setauket, Port Jefferson, Shoreham, Riverhead and Cutchogue. New offices have been opened and outside plant installed at Mattituck, Southold and Setauket. A common battery office has replaced the magneto office in the Southampton Exchange District. The net gain in stations was approximately 915.

During the year great progress was made in uniting with the various electric light companies in joint ownership or joint occupancy of poles and pole facilities are now freely exchanged throughout the Division.

The year 1913 in plant work will be one of extension to a plant, which is as near completion as a telephone plant can reasonably be said to be, to take care of a growth in business, which is expanding at a greater ratio than that of any division in the territory.

P. D. HONEYMAN,
Division Superintendent of Plant.
December, 1912.

Traffic

IN the Traffic Department of the Long Island Division, 1912 has been a year of progress. Through the efficient work of our Commercial Department the growth of lines and stations has been marked. In the twelve months ending November 30 over 9,000 lines and 16,000 stations were added, representing a gain of 12.7% and 15% respectively. That this has been a healthy growth is attested by the fact that the traffic handled this fall is more than 16% greater than the traffic of last year. That this growth has been taken care of with increasing satisfaction to the public is shown by the fact that written criticisms of service for every 100,000 calls are 5% less than a year ago.

Large additions to our central office equipment have been made necessary by this growth. New common battery boards were installed in Roslyn and Southampton. The Flatbush building was enlarged and the installation of a 10,500 line switchboard

Digitized by Google

was completed. A little more than eight years ago this district was being served from a few magneto positions located in living apartments over a store. Additions to many other offices have been made. Plans are now under way to erect new central office buildings at Williamsburg and South, and enlargements of the East New York, Bushwick, Bay Ridge and Bedford buildings and switchboards are scheduled.

In January, Division Traffic Engineers were appointed and made responsible for closely studying the traffic conditions in each office and determining the number of people needed to handle the business. With the traffic varying as it does from month to month, and with the alternative of having either too many people and an unnecessary expense, or too few people and poor service, unless these organization needs are correctly estimated, it can be appreciated that their work is fundamental. They are also responsible for recommending miscellaneous central office wiring and equipment, for recommending the arrangement of lines in the switchboard, for the assignment of line numbers and for making numerous special studies of methods and equipments.

Many improvements in local operating methods and in the handling of suburban traffic have been made whereby our service has been rendered more uniform and reliable.

I stated at the outset that 1912 has been a year of progress. It has, but progress has not been confined to lines and stations or business or expense efficiencies. It has been a year marked by an increasing loyalty on the part of our operating force, by an increasing devotion to the Company's welfare.

Abundant evidence has been given of their willingness to sacrifice themselves where the best interests of the business seemed at the time to demand it, and I cannot refrain from expressing my feelings that the Company is to be congratulated on having its operating forces comprised of employees in whom loyalty and efficiency are so splendidly exemplified.

R. H. BOGGS,
Division Superintendent of Traffic.

December, 1912.

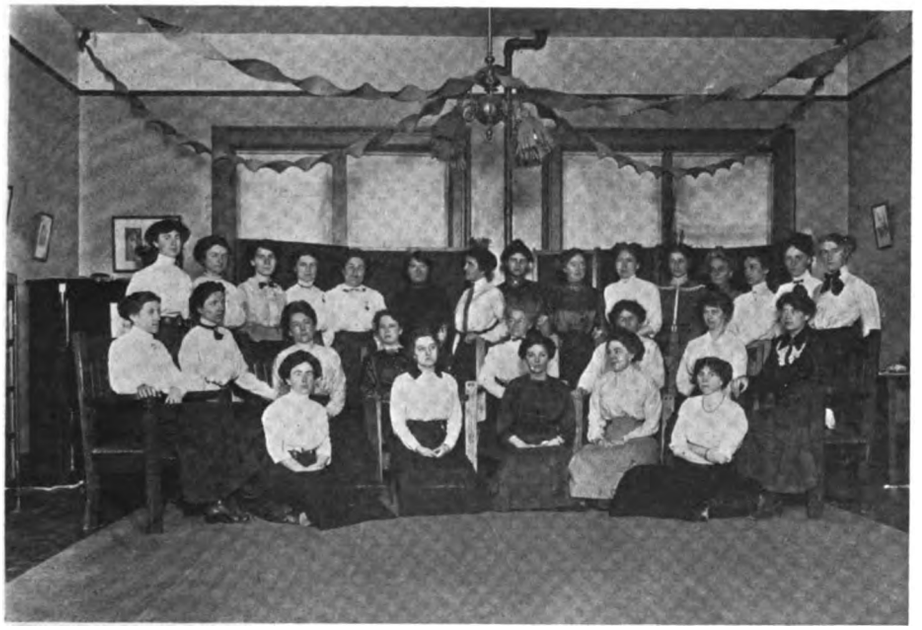
Conference of Chief Operators—Hudson Division

AT a Conference held in Albany, December 3rd and 4th, thirty Chief Operators, representing the Company operated offices in the Hudson Division, met together for the purpose of reviewing the work accomplished during the past year and outlining a campaign for 1913.

The first day was devoted to the formulating of plans and discussing ways and means whereby the service and the employees of the Operating Department might be brought to the highest standard of efficiency. Practical suggestions were made by the Manager of Instruction regarding the selection and training of students, stress being laid upon the importance of securing a high type, as it is to be appreciated that the student of the present is the foundation of the future operating force.

On the second day, the Chief Operators were addressed by the Chief Clerk, who gave an instructive talk on Peg Counts, Records and Reports, and also by the Manager of Traffic Inspection, who discussed Service Observations, emphasizing the benefits to be derived by the Chief Operators if a close study of this work is carefully made.

The spirit of co-operation, which has not yet been found wanting in the Hudson Division, was very much in evidence throughout the entire Conference.



CHIEF OPERATORS, HUDSON DIVISION
(At Albany, Dec. 3 and 4, 1912).

Lower row, left to right: Miss M. Hayes, Hoosick Falls; Miss F. Gower, Kingston; Miss E. Weir, Greenwich; Miss M. Hackett, Hudson; Miss E. Kennedy, Fort Edward.

Center row: Miss L. Benson, Schenectady; Miss J. Borne, East (Albany); Miss C. Schumm, West (Albany); Miss L. MacMinn, Main (Albany); Miss F. Carncross, Manager of Operators' School; Miss C. Dwyer, Traffic Clerk, Albany; Miss M. Avann, Toll (Albany); Miss M. Donnelly, Troy.

Top row: Miss K. Grogan, North Troy; Miss M. I. Kennedy, Cohoes; Miss E. Carden, Mechanicsville; Miss K. Duffy, Watervliet; Miss C. Quinn, Saratoga; Miss S. Benedict, Cobleskill; Miss D. LeDoux, Glens Falls; Miss M. Carwright, Saugerties; Miss S. Cameron, Newburgh; Miss A. Crawford, Hudson Falls; Miss E. Potter, Poughkeepsie; Mrs. J. Pearl, Ballston; Miss E. Dederick, Fishkill; Miss B. McKenna, Catskill; Miss N. Dalton, Goshen.

How District Representatives Can Help

DISTRICT representatives of the Traffic, Plant and Commercial Departments can co-operate with *The* TELEPHONE REVIEW very efficiently if they will call the attention of their forces to the cover design contest.

Not only do we wish suggestions by January 25, but a large vote when they are printed in our February issue.

This same co-operation could extend to inducing all our people to write articles,—long or short, for *The* TELEPHONE REVIEW.

Some may think that whatever they write will have to pass through the hands of their superiors, but this is not the case and every employee can write direct to the editor upon any subject, in absolute confidence.

Digitized by Google

W. F. BAKER
Division Commercial Manager

I. J. THORP
Division Superintendent of Plant

J. C. LYNCH
Division Superintendent of Traffic

Commercial

COMMERCIAL work in the New Jersey Division during 1912 has been consistent with the policy of general development which has been followed throughout the Company's territory, with special efforts toward efficiency in management and economy in operation. The effect of this policy is shown in an increase of 10,705 accounts, 7,812 lines and 13,259 stations during the year. In the meantime material reductions in canvassing and collection expenses have been effected, while the percentage of collections has increased. One of the factors in the improvement in collection efficiency has been the careful and courteous treatment of subscribers by the women in the Local Offices. Their assistance is fully appreciated, and to them may be fairly attributed much of the friendly feeling that has been established with our patrons.

The principal changes in organization involve the establishment of a new Commercial District comprising Monmouth County, and the elimination of Local Agents in Paterson, Elizabeth and Asbury Park, their work now being done by the respective District Agents whose headquarters are in these places.

A revised systematic selling plan has been adopted generally throughout the Division. This plan aims to direct the work of securing new subscribers and regrading present subscribers to a higher class of service along well defined lines, avoiding all unnecessary attention to sections where the results would be manifestly unsatisfactory. Although the plan has been in force for a comparatively short time, it has already proved to be the most efficient one that has been tried in the Division, and during the coming months further refinements will undoubtedly be made.

Eight Joint Class 10-A Offices were established during the year, with a total force of 104 employees, the largest being at Newark, with 78 employees. Plans are under way to add five or six more similar offices during 1913. The addition of these offices presented many new problems which were of sufficient importance and diversity to justify the appointment of a Special Agent to direct and supervise the general handling and development of the telegraph business.

The installation of 950 new type coin boxes, with the prospects of 2,000 more during 1913, called for a special study of public telephone conditions, and a Special Agent was appointed to have general supervision of this branch of the work.

Advertising has been conducted on a comprehensive scale, both in newspapers and by means of circulars and bill inserts. Local color has been given to newspaper copy which has been prepared by the various Local Agents, and this has generally appealed to the public. Care has been taken in the distribution of circulars, and particularly pre-directory post cards, with the result that the directory returns which can be traced show a marked increase in new service secured.

The TELEPHONE REVIEW has been well supplied with articles and ideas originated in the New Jersey Division, and we hope to record many more items of interest, not only to the Division, but to the entire Company generally.

The outlook for 1913 is fairly promising, and with the changes in rates which are contemplated, the adoption of new routines and the experience of the past, we hope to show a continued healthy development.

W. F. BAKER,
Division Commercial Manager.
December, 1912.

Plant

DURING the past year an attempt has been made by the Plant Department in the New Jersey Division to reduce as many as possible of the problems that have arisen from time to time to a more clean-cut and positive basis of solution. In other words, a special effort has been made to get away as much as practicable from the solution of the more important problems by the so-called "Hunch" or "Rule of Thumb" methods. It is felt that much gratifying progress has been made along this line, and some valuable results have been obtained. This method of striving to accomplish things is much more difficult than the easier way by the "Hunch" rule, but it is also much more likely to give the right answer and to get the desired results. Many of the important problems in our business during the last fifteen years have been successfully solved by more or less "Rule of Thumb" methods. It is believed that this has been so because many of the problems were of such a

Digitized by Google

nature that the correct answer could in most cases be obtained by the exercise of careful judgment aided by previous experience. When the correct answer of a given problem can manifestly be obtained by the exercise of common sense, based upon more or less superficial data, it would be foolish to waste time in obtaining the answer by the longer but surer method. Many of the problems of the present and of the future cannot, however, be satisfactorily solved in this manner, because the difference between the right answer and the wrong answer is not so clearly defined.

By the application of the principles outlined above and aided by patient and persistent study, we have been able to effect appreciable economies in the handling of our work. Not only have many thousands of dollars been saved each year, but the efficiency of our service has at the same time been improved.

These economies have been shared with our subscribers by reduction in rates and various other concessions, and with our employees by increases in pay. The increases in salaries in the Plant Department in the New Jersey Division in 1912 amounted to almost $100,000 per annum. Both the public and the employees are also the gainers by the increased efficiency which has been obtained.

A continuous effort has been made to keep the right point of view in connection with all phases of our work. If a general of an army of 100,000 men, with a battle front extending over 100 miles, goes to the firing line at one particular point and sees his men, as far as his eye could reach, completely annihilated, he is liable to order a general retreat. If his point of view and sense of proportion had been proper at that moment he might have seen that the army as a whole had been victorious. So it is with our work from foremen to Superintendents. Our point of view and sense of proportion must be properly maintained if the best results are to be secured. With this thought in mind, a general review of the whole field of operation of the Plant forces has been attempted and the relative importance of the various phases of the work determined.

The engineering construction and maintenance of the Telephone system has been analyzed, and an effort made to concentrate our energy on the more important things. Careful study showed that the completion of an adequate aerial cable distributing plant was by far the most important phase of our construction work, and the limelight has been placed accordingly. The following table shows quite clearly the results of this effort:

Amount of Money Spent on Exchange Aerial Cable Construction

Year	Amount
1908	$147,000
1909	194,000
1910	164,000
1911	320,000
1912	420,000

In the maintenance work a comprehensive study has been made of all classes of trouble in order to lay bare the weakest points in the system and enable us to give most attention to the most important things. Central Office trouble was found to be the least important of the three general classes of trouble, namely: Central Office, Line and Station trouble. This is so for two reasons:

First.—The total number of Central Office troubles and the effect upon the service is by far the smallest.

Second.—During the last 15 years the most study has been directed to Central Office maintenance and, as a result, Line and Station trouble now demand the most attention.

As far as the outside plant is concerned, most of our energy has been directed during the past few years to the cable plant, which was until recently the element demanding the greatest attention. A careful study of our line trouble showed, however, that the twisted pair plant is now probably the most important portion of the outside property. *The* TELEPHONE REVIEW could be filled from cover to cover with the story of twisted pair, but the final chapters could not be written at this time. As it is not desired to start a continued story, nothing will be said now about this important phase of the plant maintenance, but we hope to have an interesting story to tell at the end of another year.

A similar study of station trouble was made and we believe that we have scccessfully solved many important problems in connection with station maintenance. We know just how much station trouble is preventable and just how much money it would take to prevent it, and, further, we know how much money should be spent on station maintenance. The most important phase of this problem is the effect upon the service by a reduction of a given number of troubles, because the value of the good will of our subscribers gained by such improvement in the service is the predominant factor.

What we consider to be one of the most important advances during the year of 1912 has been a critical analysis of the great question of comparative statistics and reports, in order to determine how the greatest amount of good could be accomplished by their use. Our study has shown that a vast and fertile field of work exists in the Plant Department in connection with the compilation and use of accurate comparative statistics. It is believed that a critical analysis as to the present cost of our reports, value received therefrom and the value that might be received from a more satisfactory system of reports is by far the most important single problem that faces the Plant Department in the coming year. It is believed that our work is now on such a large scale that the old "Rule of Thumb" methods and the determination of the weak points in the system entirely by personal contact no longer fulfill all of the requirements.

The importance of personal contact with the work and the field forces has not in the least diminished, but the necessity of supplementing this method of "sensing" the value of things with accurate statistics has become of vital importance. In a vast majority of cases comparative statistics rapidly decrease in value as the units being compared approach each other in efficiency. The time soon comes in nearly all cases when data which have been satisfactory are no longer accurate enough to be of real value. Comparative statistics then fail, due to three causes:

First.—Clerical inaccuracies.

Second.—Compilation under different definitions.

Third.—Lack of accurate data to allow for the difference in physical and geographical conditions of the various units being compared.

A comparative report, to be of real value, must be accurate, as far as all three of the factors mentioned above are concerned, to within a percentage of error appreciably smaller than the difference in the percentage of efficiency of the units to be compared. To illustrate: If one foreman is doing a given class of work twice as efficiently as another one, almost any old kind of a report, if it is accurate within 50 per cent., will demonstrate which man is doing the better job. When, however, the two foremen under consideration get to the point where their difference in efficiency is 10 per cent., a report which is 15 per cent. inaccurate is of absolutely no value. Such a report might wrongfully show that the man who is doing the better job was 5 per cent. below the other one.

If a critical analysis of all our reports is made with the thoughts outlined above in mind, startling conclusions must follow.

I. J. THORP,
Division Superintendent of Plant.
December, 1912.

Digitized by Google

Traffic

DURING the year 1912 the lines, stations, and daily originating traffic in the New Jersey Division have been increased by approximately 8,100 lines, 13,600 stations, and 65,000 calls, enough to make a new Central Office the size of Market.

During this period we have handled a total of approximately 140,000,000 originating calls, a fairly large proportion of which had to be trunked over circuits requiring the services of two or more operators. The conditions under which these 140,000,000 calls were received and handled varied all the way from those existing in the city offices, such as Newark, Jersey City, and Paterson, to the rural conditions found in the farming communities of Jamesburg, Englishtown, and Park Ridge, and the summer resort conditions of Monmouth County, Bernardsville, and Lake Hopatcong. In some of these latter places the traffic increases 100 per cent. within a period of about three weeks, so that the younger operators, who before have had no real opportunity for practice, find themselves suddenly confronted with more telephone calls than they ever before saw at one time.

In connection with handling this volume of traffic, we have received from subscribers during the year 274 letters of complaint chargeable to operating, or about one for each 500,000 calls handled. At this rate, if the subscribers in New Jersey took turns in writing letters of complaint, each one's turn would come around (to himself or his descendants) once every 475 years. During the year we have, furthermore, received 36 voluntary letters of commendation respecting the service rendered.

During the year new common battery offices have been cut into service at Long Branch, Red Bank, and Dover. New agency operated Central Offices have been established at Holmdel, Island Heights, and Wyckoff, and locations selected at Butler and Keansburg. The Central Offices at South River, Dumont, and Point Pleasant have been placed on a semi-agency basis, and plans for so doing have been completed at Toms River. Early next year we shall cut into service common battery boards at Hackensack and Cranford. Additional switchboard equipment to care for the rapid growth has been installed at Orange, Hoboken, Union, Tompkinsville, Bayonne, South Amboy, Woodbridge, Bound Brook, Waverly, South Orange, Asbury Park, Newark Toll Board, and Market Information Desk. The further centralization of clerical, information, complaint desk, and division traffic engineering work has been carried on during the year. The number of managers' districts has been reduced from five to four by combining the Newark and Morristown districts, and the responsibilities of many of the chief operators have been extended by giving them supervision over groups of central offices instead of supervision over one office as heretofore.

The result of these changes has not only improved service, but reduced operating expense. Along this line of reducing expense, the development of individual efficiency has been given thoughtful attention. The attainment of satisfactory average operating load conditions in a division such as the New Jersey Division, subject to violent seasonal and daily fluctuations of traffic, made up largely of small office units (twenty-seven of which are in the hands of agents), with one-half the offices still on a magneto rural line condition basis, and still be able to give a service which is consistently speedy, accurate, and of a high enough general tone to satisfy a public largely made up of patrons who spend a good part of their time in or about large cities and are accustomed to city telephone service, is the problem we are working out.

In connection with the general question of reducing operating expense, the opening of the new Long Branch office, which marked the culmination of the work of converting practically all of Monmouth County to a common battery basis, has made it possible for us to overcome to some extent a troublesome condition which formerly existed. We are now able to send into Monmouth County for a few weeks during the height of the season specially picked operators from the larger Central Offices in the northern part of the division. The old magneto equipment was necessarily non-standard in its arrangement, and required a considerable amount of special local training in order to operate it satisfactorily, while the new equipment is standard in all respects and can be operated on short notice by any regularly trained common battery operator. The result is that, instead of starting to train extra local operators some three or four months before the season opens, we can now postpone the engaging of extra operators until much later and can organize for the summer on a substantially lower basis, thereby making material savings, with a better handling of the traffic during the congested period around July 4.

During the year the New Jersey operators' schools have examined 3,415 applicants, and of this number about 500 have been accepted and trained and installed at Central Offices. The fidelity and painstaking care with which these students have been selected and trained to fit all the varying conditions met throughout the division has had, and will continue to have, much to do with our success in giving high-grade service at minimum cost.

During the year considerable has been done throughout the division to improve the appearance and comfort of Central Office quarters and surroundings, with a view to making these quarters more healthful and more cheerful places in which to carry on our work. That these benefits are appreciated by the forces has been shown by countless instances of faithfulness and loyalty to the company's interests in times of storm and stress, and by the spirit and enthusiasm with which these forces go about their day-by-day duty. I personally wish to thank the traffic forces of the New Jersey Division for their admirable work during 1912, and to wish them all success for 1913.

J. C. LYNCH,
Division Superintendent of Traffic.
December, 1912.

Bane of the Burglar's Life

The Syracuse *Post-Standard* tells us that one evening not long ago burglars broke into the house of a resident of that city. No one was at home but maid and baby, both fast asleep. The smashing of a cellar window attracted the attention of a neighbor who immediately telephoned the house to give warning. The constant ringing of the telephone bell was enough for the thieves who made a hasty departure empty handed.

Evil doers have been caught so often by the telephone that even the ring of its bell is enough to scare them away from the scene of their operations.

Digitized by Google

J. A. JAMISON, Jr.
Division General Manager

E. H. POWLEY
Division Superintendent of Plant

E. G. ANDERSON
Division Superintendent of Traffic

Commercial

Organization and Scope

THE Commercial Department of the Hudson Division, with headquarters at Albany, is divided into fifteen districts under local managers, with thirty-three local commercial offices. The work of the local managers is supervised by two district managers reporting to the Division General Manager. On January 1, 1912, the department had a force numbering 159, which has increased during the year to 257, this increase being due entirely to the taking over of Western Union employees coincident with the establishment of joint Telephone and Telegraph offices. We have 80 central office districts in the Division and close the year with approximately 27,750 lines, 62,350 stations, and 50,000 active subscribers' accounts.

Canvassing and Revenue Collecting

The year has shown a steady increase in business, as indicated by a gain of over 2,000 lines and 6,000 stations, exclusive of business added by consolidation with independent exchanges, which show a total increase for the year of 3,575 lines and 8,950 stations. This station gain is 16.7% of the stations in service on the first of the year. The collection and adjustment of accounts has been attended by very satisfactory results, as shown by a good percentage of collections to revenue billed each month and a general reduction in expenses, together with a small number of complaints from the public. On January 1, 1912, the number of accounts of all kinds in the division, including Western Union Telegraph accounts, special bills, etc., was 44,000. On January 1, 1913, there will be a total of about 52,400, an increase during the year of 8,000.

The amount of bills which it has been necessary to refer to the Collection Attorney has been less for 1912 than during 1911, while collections from such accounts were materially greater, indicating a marked increase in the efficiency of that branch of the work.

Consolidation With Independent Exchanges

The work of merging the independent exchanges which we have purchased with our exchanges has gone actively forward during the year. That part of the work performed by the Commercial Department included, among other things, the formation of estimates based on various assumptions, showing the number of lines and stations to be taken over in each of the exchanges where consolidation was to take place, together with estimates of the line and station growth for the three succeeding years and the effects of standardizing obsolete contracts.

During the year, duplicate service was replaced by unified service in twenty-five of our exchanges, including Newburgh, Kingston, Poughkeepsie and Schenectady, either by physical "cut-overs" or by means of canvasses of the exclusive independent subscribers, and for these places all the commercial steps scheduled were completed. A total of 1,575 lines and 2,950 stations was obtained in the twenty-five exchanges, and it is estimated that we will take over 4,800 lines and 8,450 stations more before all the consolidations now planned are completed.

Western Union

A careful study of the possibilities of combining the telephone and telegraph business throughout the Division has resulted in the establishment of twenty-four joint offices during the year, making a total of twenty-eight now in operation, with a force of 108 employees engaged almost wholly in the telegraph work.

The routine recently established whereby the majority of the Western Union reports are made at the Accounting Center has already been made effective for six of the offices and is operating satisfactorily. As a result of a very active year in this work, we are able to report an increase in efficiency and a greater economy by the joint office arrangement as well as a growing appreciation of the plan on the part of the public.

Commercial Engineering

The Commercial Engineering Department has successfully carried on a large amount of general and detail work in connection with consolidations and the establishment and operation of joint telephone-telegraph offices. Much data has been prepared relating to the proposed merger with Independent Companies in the northern part of the Division, the Forest Fire Patrol System, Regrade Studies and Rate Hearings. Proper consideration has been given to the development of the rural districts and the needs for public telephone service in these sections. Private Branch Exchange studies have been conducted in connection with various large installations, and arrangements made for furnishing a police signal system for

Digitized by Google

the City of Poughkeepsie. Much attention has been given to the revision of various routines as well as to the systematic development of the business along proper lines. A steady progress has been made toward the standardization of rates and practices, resulting in a benefit both to the company and its patrons. Numerous studies and recommendations for toll rate changes and the establishment of toll rates with new points have been made. The necessity for added extra-territorial privileges has been investigated and various suggestions made to the Traffic Department for improvements through more direct routings at proper rates.

Connecting Companies

On account of the number of new traffic agreements closed during the year 1911, the possibilities for making new agreements with the Independent Companies in the Hudson Division were practically exhausted. During the year 1912 three new standard connecting company agreements were made, thereby completing connections with every non-competing company in the Division. Eleven agreements which expired during the year were changed to standard form, so that we now have forty-six companies connected under this form, which is 60% of the total.

We have now had the standard form of agreement in use for about two years and it has proven to be entirely fair and satisfactory, both to the connecting companies and to the New York Telephone Company.

Connecting Companies have shown a heavy increase in business. On December 31, 1911, they had 27,336 stations, and on December 1, 1912, 30,049, a gain of 2,713 stations, or a little over 9% for the eleven months. During this same period the toll revenue increased over 23%.

Studies have been made for the connecting companies to assist them in developing certain sections of their territory, establishing local and toll rates and in making satisfactory trunking arrangements. Eight companies have purchased and installed new Western Electric switchboards during the year.

Most of the negotiations with the connecting companies have been carried on by our local managers, thus bringing the company into closer relations with them, and materially advancing the interests of both.

Advertising

The work of the Advertising Department has consisted of the general advertising and publicity and the publication of the telephone directories for the Division. Three sets of directories were published for all places in the Division and in addition thereto thirteen special books were issued at the time of consolidations with independent exchanges. In the field of publicity a judicious amount of advertising, well within the appropriation, was placed with entirely satisfactory results.

In general the year 1912 has resulted in a large amount of favorable publicity and increased approval from the public and the press of our business policy and methods.

Forecast

For next year we have in view the systematic continuance of the work incident to, and the completion to a great extent, of consolidations with the Independent exchanges purchased; and the bringing of the joint office work to a point where it will have been absorbed by our organization and become a routine part of the duties of the local offices to be handled in the systematic manner that has already proven so efficient in connection with our telephone work. This will effect an economy by permitting us to withdraw to a great extent the detailed supervision which has so far been necessary in order to insure the establishment of uniformity in the conduct of this new feature of our business.

With these matters, as well as negotiations with our connecting companies, either completed or well in hand, we shall be able to devote a greater part of 1913 to the revision of our exchange boundary lines to conform to the new conditions caused by consolidation, to further development of our rural territory, and to the standardization of subscribers' contracts under uniform rate schedules. The Plant Department has planned to provide increased plant facilities in many of the exchanges in the Division, and this will permit a more active canvass for new business in these places than was possible during the past year. We anticipate for the year a gain in new business of 3,900 lines and 6,800 stations, with a total gain after consolidations and regrades of 11,000 lines and 13,325 stations.

J. A. Jamison, Jr.,
Division General Manager.
December, 1912.

Plant

THE general impression gained by reviewing the progress made by the Plant Department in the Hudson Division during the past year is that a large volume of work has been handled in a quiet way without any radical changes either in organization or methods. The amount of construction work done exceeds 1911 by at least 10% and the number of installation orders executed (connections, disconnections, etc.) exceeds last year by 20%.

1912 will probably be remembered by most of the Plant employees on account of the consolidation work.

Consolidations

During the past twelve months approximately 1,450 lines and 2,700 stations have been added to our exchange plant as a result of the purchase and consolidation of a number of Independent telephone exchanges formerly owned by the United Message Company and the Eastern New York Company. The work of bringing the two systems together without interruption of service on either side was started with the Hoosick Falls cut-over on January 6, 1912, and continued throughout the year in 17 other exchanges ending with the Warrensburgh cut-over on November 9. Much remains to be done (as there are still 4,763 lines and 8,469 stations mostly in the vicinity of Albany, Troy and Glens Falls to be taken care of) but the satisfactory manner in which the work was handled this year is evidence of conscientious work on the part of all employees from the District Supervisors and Engineers to the rank and file of the department. Those engaged in this very interesting work have learned more about the telephone business, and the experience should be useful in the future. The acquisition of so much comparatively old and used telephone plant at one time places a heavy burden on the maintenance force and while every effort is being made to improve questionable conditions as rapidly as possible it

Digitized by Google

will be some time before all of this purchased plant is entirely assimilated.

Exchange Aerial Cable

Aerial cable plants have been completed in Liberty, Ellenville, Dover Plains, Patterson and High Falls and additions made to the outside plant in Newburgh, Poughkeepsie and Kingston. The outside plant work in Amsterdam, Mechanicsville and Greenwich is finished and other work of this character is partially completed in Schcnectady, Troy, Glens Falls and Saugerties. 60% of the exchange plant in the Division is in shape to take any reasonable amount of growth. A $150,000 estimate has been approved for Albany, and a $50,000 estimate for Glens Falls is underway. With the completion of this work and the clean up of estimates in Schenectady, Troy, Poughkeepsie and several smaller places the cable plant throughout the Division will be in good condition; approximately 80 miles of aerial cable and 30 miles of underground cable being placed in connection with the work.

There is considerable work to do in rebuilding the exchange open wire lines, particularly those acquired by consolidation, and this will be undertaken in 1913.

Toll Cable

The Albany-Troy toll cable and the Troy-Watervliet submarine cable have been placed so all circuits routed north through Troy will be well protected. The completion of this work marks the close of a $115,000 job, as the subway was built in 1911 at a cost of $65,000.

Open Wire Trunk Line

During the early part of the year an effort was made to improve the condition of the open wire toll lines and some $8,000 was spent in tree trimming, cutting out bad joints, and replacing defective poles and guys. While work of this kind will always be necessary on account of growth of trees and inability to secure more than 18 inch clearance in some cases, the toll circuits show a corresponding improvement and the employees responsible for their condition realize the importance of good joints and of good connections in cable boxes and Central Offices.

Supplies

During the year $802,000 worth of supplies was disbursed to the working forces from 30 stock locations (11 storerooms with regular storekeepers). The supplies purchased amounted to about $603,000 while the Supply Investment per station decreased 40% since 1911. The use of a 1½ ton Mack truck for supply purposes between Albany, Schenectady and Troy storerooms has made possible a reduction in the Supply Investment in these three places of $55,000 or 40% less than it was last year.

The Supervisor of Building and Supplies exercises general supervision over the 16 automobiles and 17 motorcycles used in the Division, and some progress has been made in standardizing equipment and methods of operation. The use of motor vehicles has passed beyond the experimental stage and there is no doubt as to their value in cutting down the lost time element for loop gangs and others having a number of small widely scattered jobs.

Accidents

Considerable attention has been given to the prevention of accidents to employees and an effort made to impress the Foreman and workmen with the necessity of using every precaution when working in dangerous locations and to avoid taking any chances. There will always be a certain number of accidents, but these can be kept to a minimum by careful preparation and careful supervision.

General

The work done by the Construction Forces has been satisfactory, and it is expected that the same standard will be maintained during the coming year.

A marked improvement has been made in the clerical end of the work, and reports and correspondence are being handled quicker and more accurately than in the past. In the case of Disbursement Tickets (used for Accounting purposes) and Contract Orders prompt and careful work is necessary and during the coming year every effort will be made to handle this class of work without trouble.

Next Year's Work

During 1913 more time will be devoted to studying the maintenance side of the business and an attempt made to use the labor and material to best advantage. Attention will be given to

1. Cleaning of carbon blocks in protectors and proper placing of micas and a study made to see what effect this has on subscriber line troubles.
2. Inspection of old aerial cable plants to prevent trouble due to slack guys, missing rings, etc.
3. Proper placing of drop wires and ground wires.

One of the pleasant things in connection with the work of the past year has been the cordial co-operation of the Traffic and Commercial Departments, and an event of unquestioned interest to every employee in the Hudson Division was the announcement of the new pension scheme.

E. H. Powley,
Division Superintendent of Plant.
December, 1912.

Traffic

In general, the year 1912 has been an exceptionally busy one. Beginning in the latter part of 1911 and continuing through this year, both the local and toll traffic has shown an increase more than proportionate to the increase in telephones. A large part of the year has also been taken up with the work incident to consolidating the plants of Independent Companies with the plants of our own Company. A tremendous amount of detail not appreciated by the public is involved in the preparatory plans and the actual work of merging two plants and giving one service thereafter. The dual systems have been consolidated into one system at Newburgh, Poughkeepsie, Kingston, Catskill, Wappingers Falls, Marlboro, Milton, Highland, Rosendale, Shokan, Phoenicia, Woodstock, Saugerties, Schenectady, Ballston, Schuylerville, Greenwich, Valley Falls, Lake George and Warrensburgh.

The most unusual increase in local traffic was probably that in the City of Albany, where the total volume of business was increased in a year's time from about 62,000 calls to 90,000 calls a day. The calling rate is now 19.55 calls per line per day in Main (Albany), which is probably the highest calling rate in New York State.

Three new exchanges were opened during the year, at High Falls, Dover Plains and Patterson. The exchange

Digitized by Google

at Philmont was added by purchase from a former Connecting Co., the exchange at Rosendale was added by consolidation of a former Independent plant, and the exchange plant at White Lake was sub-licensed to one of our Connecting Companies.

The grade of service rendered throughout the year has been in general very satisfactory in spite of the unusually disturbing elements, not the least of which is that at some offices the operating force was increased by 50% within a relatively short period, owing to consolidation of plants. The percentage of errors and irregularities has been consistently smaller than a year ago, thereby indicating a greater accuracy.

During the year, the District Headquarters of the Southern District were moved from Newburgh to Kingston, and of the Northern District from Glens Falls to Schenectady. The number of Districts, by rearrangements, has been reduced from 5 to 4.

About the first of the year, the position of Division Traffic Engineer was established. Practically all of this department's detail work in connection with consolidation has devolved upon the Division Traffic Engineer.

During the year, nine offices have been operated on a new plan, tried experimentally in this Division. At Keene, Waterford, Schuylerville, Chatham, Amenia, Pawling, Millbrook, Ellenville and Liberty, the method of operation was changed just prior to January 1, to what is called the semi-agency plan of operation. The plan has worked very satisfactorily, the grade of service rendered being equally as acceptable to the public, if not more so, while there has been a net annual saving effected averaging five hundred dollars each.

About a year ago a system of monthly inspection reports was introduced, these reports being made up by the Traffic Chiefs, covering many details, at each office, which might be overlooked if not recorded in some form. The reports also serve to show the Traffic Chiefs the improvement and progress from month to month. These reports have since been adopted as routine for all Divisions.

A systematic effort at trimming out the less satisfactory employees and a careful selection for replacements and growth has been going on with the result that today there is a decided improvement in the tone and personnel of the entire operating force.

There has also been a decided improvement in the efficiency of the forces, including the general clerical bureau at headquarters. With a very large increase in the amount of work, due to station growth and local and toll traffic increases, and consolidations, we have executed it more satisfactorily. No explanation for this other than greater efficiency per individual.

A routine for making observations regularly on our toll service was developed in this Division, and the observations were started last Spring. We have found these observations very helpful, as anticipated. Other Divisions are planning to introduce a similar routine. There has been a noticeable improvement in the compliance with the Toll Operating Instructions. This improvement has been assisted also by a system of lessons for toll operators and periodic quizzes.

There has been a very healthful increase in both the Long Distance and New York Company toll traffic throughout the year. With the additions to our trunk line plant and increased efficiency in toll operating, the toll service today is its own best advertisement.

The acceptance of calls by name in some of the smaller offices has met with approval and seems to have settled for good the criticisms from the public relative to this matter. We have not, however, required operators to memorize numbers and have been unwilling to have operators rely entirely on their memories, and in those offices where we can, to a reasonable degree, accept calls by name, some handy reference form of directory has been mounted on the switchboard.

In response to what seemed to be a more or less popular demand on the part of rural line subscribers, we have adopted the system of long and short rings on rural lines, instead of designating the signals by the fire alarm system of all short rings.

On the whole, we have had a progressive and successful year, made possible by the sincerity and loyalty of the telephone operators. A proper tribute to these faithful girls would fill considerable space. We have tried to do our part to keep them healthy and happy, and they have responded very nobly. I wish to extend to each and every one of them throughout the Division—my compliments.

E. G. ANDERSON,
Division Superintendent of Traffic.
December, 1912.

Ideas and Suggestions Welcomed

WE RECEIVE every month communications from employees, embodying new ideas and suggestions which are designed to improve the methods or apparatus which are in use.

These are always welcome, and there is no doubt that very often good results are obtained through them. It frequently happens that the recommendations really are not improvements, or are impracticable for one reason or another. Every new idea will not work out in practice, so suggestions that are immature, or are the result of inexperience, are of no benefit.

On the other hand, every employee should feel it his or her duty to study how to make improvements, and the proper place for their recommendations to be submitted is to their immediate superiors. But there is no objection to their being forwarded to us. In any case, proper credit will be given to all who are interested to this extent.

Recently, we have received an anonymous recommendation signed "An Installer, Orange," which possesses considerable merit and is being tried out. We hope to give further particulars, if his recommendation "proves in." We have received other suggestions from F. Thies and G. Lindenberger, jointly, who are installers in Manhattan; F. F. Miller, Wire Chief, West New Brighton and New Dorp; Clarence B. Fowler of the Beekman Central Office; A. Christianson, Chief Clerk, Plainfield; Albert Schaper, Testing Department, Long Island; J. C. Keep, Plant Department, Manhattan; G. Downie, Jr., Instrument Inspector, Manhattan; H. C. Owens, Inspector, Plant Department, Manhattan; C. E. Dennis, Plant Department, Long Island; C. P. Wold, Inspector in Broad Exchange, Manhattan; A. W. Douglas, Plant Department, Newark; Morgan T. Coakley, Engineering Department, Long Island; Archibald E. Kidd, Plant Department, Newark, and C. Strachan, Insideman at New Rochelle.

Digitized by Google

D. C. COX
Division General Manager

F. J. CHESTERMAN
Division Superintendent of Plant

H. H. KENNEDY
Division Superintendent of Traffic

Commercial

THE year 1912 has been of special interest and importance to the Commercial Department in the Central Division.

In the latter part of 1911 our field forces were completely reorganized, the number of District and Local Managers being reduced, and Resident Agents being appointed in a few instances in place of Local Managers; that change was made entirely within the organization of the Central Division, yet it was so far reaching that the territory assigned to the Local Supervising force was, in almost every instance, new.

With this in mind, and the fact that it was not deemed advisable to carry on a live canvass in exchanges where competition existed, and that it seemed inexpedient to conduct any active campaigns in those towns in which consolidations were to be effected during the year, we decided at the outset to devote our attention more to cleaning up irregularities, and putting the existing business on a sound basis, than to obtaining any material increase in station numbers.

As is well known, a very important part of our work has been that in connection with consolidations of Independent plants with those of the New York Telephone Company; of that work we have had considerable during the year, and thus far no direct and serious adverse criticisms have been received; on the contrary, we were gratified to have certain newspapers commend the work editorially.

We feel that this is more or less remarkable when it is considered that the acquisition of these Independent companies has resulted in adding to our System about 10,000 new stations in 20 Exchanges—an increase of 16 per cent. of the Division's development.

Much has been done toward bettering the conditions surrounding Connecting Companies, and much assistance given them toward the establishment of proper Rate Schedules, planning the reconstruction of outside plant, new Central Office equipment, and placing their business in corporate form. A noticeable improvement in service is directly traceable to this, as well as a large increase in the toll revenues per station.

In September, 1911, we began taking over the business of the Western Union Telegraph Company at certain points, and since that time have established numerous Joint Offices, some of them being important centers, such as Auburn and Ithaca.

By the establishment of those offices, we have added many to the field force, but we have taken over the Commercial work of the Western Union at these offices without increasing the number of Commercial employees.

D. C. Cox,
Division General Manager.
December, 1912.

Plant

"CONSOLIDATION" — that word has been the key to almost all the activities in the Central Division during the past year; it has been the slogan that has spurred on the individual and the departments in their efforts to keep the "Consolidation Limited" on schedule time.

It is doubtful if there have ever been, in the history of the telephone business, a year's accomplishments in any organization that have so consistently required the co-operation of forces and the meeting of scheduled dates.

When it is stated that twenty-four competing company exchanges, involving approximately 10,200 lines and 14,900 stations, have been consolidated with the Bell System in 1912, and that the work in four additional exchanges is planned and well under way, it is doubtful if any but those who have participated in the work will fully appreciate just what this means. There were obstacles at every turn, but, if the results were hard to obtain, it only made the game more interesting.

From a Plant standpoint, each consolidation in general involves two stages; one providing for the unifica-

Digitized by Google

tion of the service, the other providing for the assimilation into the Bell System of such portions of the purchased plant as are found adaptable. In some cases the two were effected simultaneously, while in others the combination of plants will require upward of two years to accomplish. About all of the problems known to telephony, and many new ones, were encountered, and a special study had to be made of every case, as no two were alike. A great deal of outside plant and Central Office work was required in almost every case, and it was even found necessary at eleven points to establish complete new Central Offices: three of the common battery and eight of the magneto type. Standing out prominently among the others are the cases of Watertown, Syracuse, Utica, and Rome, which may justly bear a little elaboration.

Watertown

The Watertown service was consolidated in 1911 by increasing the multiple capacity of the old No. 8 board, equipping it with harmonic ringing to care for the Independent 4-party stations, and by reconcentrating to our plant, where possible, tying the remaining lines from a temporary frame in the basement of the Independent building to the Bell main frame. The Independent building thus vacated was then remodeled and enlarged, and a complete new No. 1 Common Battery Central Office equipment installed. New cables were run out to bridge in the working cables, and the "cut over" was made June 1, 1912. About a week previous the harmonic instruments were replaced with standard instruments and the lines cut into the new board, all calls being trunked until the time of the "cut over."

The total lines and stations involved were 1,938 and 3,878, respectively.

Syracuse

On June 28 the Syracuse service was consolidated by means of circuit trunks run to the "B" boards in each office, at the same time eliminating the Independent duplicate stations. Each office continued to operate as formerly throughout the whole city, although a theoretical boundary line was established.

Only a day or so after the consolidation, a severe lightning storm threw trouble into several former Independent cables and at several hundred subscriber stations, thereby unfortunately producing a very unfavorable impression of consolidated service in the minds of some of the public, who did not understand the cause.

About the middle of July it was discovered that the traffic on the old Bell ("Warren") board had reached serious overload proportions, and a hurry call was made for relief. A special rush schedule was therefore arranged for a "cut over" of 1,100 lines to the former Independent board, and this was accomplished on August 24 by working under pressure.

This was followed by a very strenuous period, during which the protector equipment on the "James" main frame had to be entirely replaced, strip by strip, and at night. Some quick splicing jobs were also necessary to clear former Independent cables whose insulation broke down under the new machine ringing that had just been installed, and many of the subscriber stations had to be reinspected and the protectors replaced. It was the installation of machine ringing that proved too severe a test on the former Independent plant and located its defects, where a 100,000-ohm voltmeter test failed to do so.

For the outside plant, one estimate involving an expenditure of $57,000 is now under way, and another estimate involving about $140,000 worth of work has recently been submitted. Another hundred thousand dollars probably will be required to complete the work of eliminating duplicate plant, extending cable into newly developing sections, and replacing plant found to be defective or inadequate. The transmission in the outlying sections is to be materially improved by the provision of No. 19 instead of No. 22 gauge conductors.

One feature of our plans, which will be of especial interest to the Syracuse public, is the proposed elimination of approximately 3,000 poles from the streets of the city. This could only be accomplished satisfactorily by the thorough co-operation which we are receiving from the Syracuse Lighting Company in the line of joint construction.

Utica

On November 23, at Utica, the 3,616 lines and 4,519 stations of the Independent Company were cut over to the completely remodeled Bell office by means of bridging cable. A new terminal equipment on the second floor replaces the old intermediate frame, which was on the fourth floor, and the main frame, which was in the basement, and subject to floods and moisture. A new toll board now occupies the fourth floor and the third carries a new "A" board, the old "A" board, re-equipped and with multiple extended, being on the fifth floor.

To ring the Independent instruments, until replaced, it was necessary to set up temporarily a harmonic ringing machine and equip the keyboards for this purpose.

Rome

The peculiarity of the Independent subscriber station equipment at Rome, with common battery signaling and local battery talking, required practically the duplication of all plant and the elimination of the Independent plant, which was found to be in very poor shape.

One of the most important features of the work as a whole was the problem of the trunk lines. Our own trunk system had outgrown itself in places, and required relief. Our trunk entrances into many of the cities and villages were not satisfactory, and some of the routes had a limited capacity. A futurity study, if I may use that term, had first to be made of the trunk requirements along the various routes. It was then necessary to make detailed surveys of the physical conditions and lay out an ultimate plan that would care for the future, so that the work required at once would not prove futile at a future date on account of untenable conditions at other points. To insure further the success of our plans, options are being taken and recorded for right of way which will be needed a few years hence.

At Syracuse there are at present fourteen entering trunk pole lines of the New York Telephone Company. When the plans are fully carried out, these will be grouped and centered, so that only four composite cables will be required to carry them to the toll board.

Similar plans are under way at numerous other points, and the whole trunk line proposition is being handled on an ultimate study basis, the same as has been the practice in exchange work.

The work of the Central Division for the year is one of vital significance to the telephone world and the public in general. It marks the first step taken toward furnishing the public the maximum benefit that can be offered by the telephone to-day—Universal Service.

F. J. Chesterman,
Division Superintendent of Plant.
December, 1912.

Digitized by Google

Traffic

THE Traffic Department in the Central Division has had a year of unusual activity, due in large measure to the problems and complications incident to consolidating the various plants of the Utica Home and Onondaga Telephone Companies with the New York Telephone Company's plant. The following brief summary will give some idea of the extent of this consolidation through the central part of the State:

		Date of Consolidation	Lines in Service Before Consol.	Lines in Service After Consol.	Stations in Service Before Consol.	Stations in Service After Conso
1.	Weedsport	Mar. 30, 1912	85	146	169	318
2.	Jordan	Mar. 30, 1912	78	90	262	367
3.	Liverpool	May 1, 1912	...	30	...	131
4.	Tully	May 1, 1912	47	89	85	267
5.	Skaneateles	May 28, 1912	49	184	124	388
6.	Syracuse	June 28, 1912	8,485	9,729	16,068	17,887
7.	East Syracuse	June 29, 1912	12	161	13	476
8.	Baldwinsville	June 30, 1912	250	320	450	624
9.	Little Falls	Aug. 3, 1912	569	850	1,058	1,829
10.	Dolgeville	Aug. 3, 1912	...	...	160	238
11.	Frankfort	Aug. 17, 1912	...	133	...	329
12.	Herkimer	Aug. 17, 1912	423	657	737	1,166
13.	Ilion	Aug. 17, 1812	220	408	398	763
14.	New Hartford	Nov. 23, 1912	...	172	...	407
15.	Newport	Nov. 23, 1912	...	53	...	276
16.	Utica	Nov. 23, 1912	2,244	4,782	4,592	7,643
17.	Whitesboro	Nov. 23, 1912	...	112	...	266
18.	Clinton	Nov. 23, 1912	11	121	12	393
19.	Rome	Dec. 7, 1912	868	1,287	1,525	2,018
20.	Vernon	Dec. 7, 1912	Transferred to a new Connecting Company.			
	INCREASE			5,983		10,127

A vast amount of detail work was involved preparatory to the actual consolidations. In some of the Independent offices no central office records were available; in others they were incomplete and out of date, so that it was necessary to obtain by inspection and tests the actual working lines and stations. Then it was necessary to establish a contract-order routine that would fit in with our own in order that these original records might be kept correct and up to date; and, to insure further the accuracy of these records, numerous checks were held between the Commercial, Plant, Traffic, and Directory Departments. It was also necessary to prepare and have ready at time of consolidation, complete, new central office records, as panel and jack record, general numerical record, condensed numerical record, street address record. These records, together with the required changed number lists, involved about 4,500 pages of typewriting. This work was all done under the direction of the Division Traffic Engineer, who had to augment his force largely to accomplish it. In addition, 147 Independent operators had to be trained in our methods without interfering with their service, and 136 additional operators taken on and trained, on account of the large increase in traffic resulting from the consolidations.

Syracuse is the home of the New York State Fair, which annually draws thousands of visitors and hundreds of exhibitors from out of town, many of whom desire telephone service while on the grounds. In previous years the service rendered had not been entirely satisfactory, because the attended public telephone station was located in the main exhibition hall, surrounded by piano players, gas engines, talking machines, etc., but, through the courtesy of the Commission, we were this year able to obtain isolated quarters where a four-position common battery board was installed, with an adequate number of booths. The facilities installed and the service rendered elicited high praise from the Secretary of the State Fair Commission. In addition to the special facilities installed on the Fair Grounds, it was necessary to install in the central office two toll-recording and six toll-line positions, because the toll traffic during Fair week runs about 22 per cent. above the normal fall traffic. The local traffic also shows an appreciable increase over normal conditions, viz., about 16 per cent. To handle adequately this large increase in toll and local traffic, a sufficient number of competent operators were brought in from other central offices, and an excellent grade of service maintained during this high-pressure period.

It has long been recognized that Syracuse is an ideal place for conventions, due to its location in the center of the State and its accessibility from a transportation point of view. With this in mind, the Arena was erected last year, with a seating capacity of 5,000. As a result, the National Progressive Party held its State Convention in Syracuse during the first week of September, and the Democratic Party the first week in October. To provide adequate telephone service during the conventions, the facilities in all the principal hotels were largely increased, and two attended public telephone installations were established at the Arena, one at each end of the Convention Hall. To operate these enlarged facilities, the local public telephone operating force was largely augmented from the Public Telephone Department of Manhattan. That our plans were well laid, and the high grade of service appreciated, was evidenced by the compliments received from the State Committees and the hotel managements.

H. H. KENNEDY,
Division Superintendent of Traffic.
December, 1912.

A Poetic Contributor

IT IS astonishing how many poets there are in the telephone business. Contributions of this class are pouring in upon us all the time, although as may have been noticed, we print very little of it. In fact, it is against our policy unless there is something particularly striking in the thought or composition. Occasionally, however, we vary the rule, and we do so now in printing the lines of a contributor who signs himself "The Mysterious Guy:"

We oft have heard of the whispering winds
That blow o'er hills and dales;
And of the flutelike whispering pines
Lone sentinels of the vales.

But what of the whispering wires that speak
In almost every tongue,—
That carry a message of joy or grief
To almost every one?

Through city, woods and hamlet,
Their voice is never still,
They always have a tale to tell,—
For us they always will.

In forwarding the above, "The Mysterious Guy" wrote: "I can see this carried out in the waste basket. However, I will come again."

The spirit in which the above was sent to us is appreciated and is worthy of emulation.

Digitized by Google

C. A. SPAULDING
Division Commercial Manager

P. O. JACOBS
Division Superintendent of Plant

J. J. WELCH
Division Superintendent of Traffic

Commercial

THE Commercial work in the Western Division during 1912 was carried forward on a conservative basis, owing to the fact that during the year, in many of the larger exchanges in the Division, there was not sufficient plant available to make it possible for the Commercial Department to canvass for business as actively as it otherwise would have done. Strict attention was necessarily paid to conducting the canvass in such sections as a study of the plant proved that stations could be installed economically. The percentage of increase in stations for eleven months in the Division was 7.49.

In Buffalo two buildings are nearing completion; one, the handsome 15-story Office Building, will contain the Seneca Exchange, the other, the Tupper Exchange Building, will serve the territory heretofore cared for by the Bryant and Tupper Exchanges. By the time these two new Exchanges are put into service, Buffalo will be well provided with plant, and a much more rapid rate of growth will be obtained than heretofore. The erection of these two buildings has made a very favorable impression upon Buffalo people, and the efforts of the New York Telephone Company to provide means for adequately serving the public have made it a very popular institution.

During the period when it was impossible to canvass generally in Buffalo, constant attention was given to clearing traffic irregularities, changing irregular billing accounts to the standard system and in refining practices and routines.

One Hotel Private Branch Exchange was secured during the year, 122 stations of this Company replacing service of another company in the Hotel Touraine.

In Rochester business was secured about as planned at the commencement of the year, and in the month of November the record for net gain in Stations as broken.

Much attention was paid during the year to the promotion of toll business, and so prompt was the response of the public to the efforts of the Commercial Department, assisted by toll advertising, that it became necessary to change our efforts to promote the general toll business to a campaign for popularizing the 2-number calling system on toll lines.

Twelve Joint Offices were established during the year in connection with the Western Union Telegraph Company.

Large cities and many of the villages in the Western Division are growing at a very rapid rate, and this fact, in connection with the increasing popularity and value of our service, makes it possible to forecast that the year 1913 will witness a greater percentage of increase in business, than it has experienced in any one year heretofore.

C. A. SPAULDING,
Division Commercial Manager.
December, 1912.

Plant

THE Division Plant force averaged during the year about 1,200 employees.

A change of considerable importance was made effective as of May 6, 1912, when the District Organization was discontinued and the force reorganized on a divisional functional basis. The principal effect of this change was to separate responsibility and supervision on Plant Construction work from Plant Maintenance work. With the co-operation shown by the Plant forces all the way down the line, the shift in organization was effected with practically no confusion, and the results of operations under the new organization have been, due to the presence of this same industrious and co-operative spirit, entirely successful. The present organization results in specializing on distinctively different kinds of work, and the advantages of the arrangement have been quite marked during the current year when the volume of construction work performed throughout the division was large.

Outside Plant Additions and Betterments

The principal Plant additions and improvements during the year 1912 have found place in the City of Buffalo. The subway and underground cable plants have been appreciably extended. As a total, about 6 miles of subway (about 63 miles of single duct) have been constructed. The major portion of the subway work was carried out in the downtown district, Buffalo, as a part of work incidental to the establishment of the new Seneca Exchange to be placed in service in June, 1913, in the newly constructed Telephone Building at the corner of Church and Franklin Streets. The subways connected to this exchange, consisting of 76 ducts

Digitized by Google

in one direction and 72 in another, are the heaviest subways ever constructed in the City.

Following these subway extensions, and in preparation for the cutover of the present Bryant and Tupper Exchanges to the New Tupper Exchange, located in the newly erected building on Elmwood Avenue and to be placed in service early in the year 1913, a large amount of underground cable work has been performed. Another important addition to the cable system at Buffalo is the placing of a loaded duplex toll and trunk cable from the Seneca Exchange to Tonawanda with a branch to the International Bridge, at which point important Canadian toll trunks are met. These main pieces of cable work, together with lesser extensions and additions to the system in Buffalo, involved the placing of about 60 miles of exchange and toll underground cable.

Extensive additions have been made to the telephone distributing Plant in Buffalo. Through co-operation with the Buffalo General Electric Company, it has been possible to remove a large number of existing poles, eliminating duplicate pole lines and generally bettering construction conditions. About 35 miles of aerial cable have been placed in the City of Buffalo and approximately 160 blocks and large office buildings have, as a result of active work by the Right-of-Way Department, been treated in the standard manner.

The expenditures for these Outside Plant extensions and betterments in Buffalo for the year will approximate $750,000.00.

In Rochester additions to Outside Plant representing an investment of $210,000.00 were completed. Similar work at Niagara Falls, amounting to about $60,000.00 was carried out. This completed work, together with that contemplated for 1913, will make the Outside Plants in these two cities standard throughout and adequate to meet the demands of the large growth expected by the Commercial Department.

In the smaller exchanges in the Division, work involving a total expenditure of about $250,000.00 has been completed during the year and the Outside Plant in the following exchanges placed in good condition:

Dunkirk, Lewiston, Salamanca, Lyndonville, Olean, Waterport, Portville, Albion, Holland, Barre Center, Lancaster, Kendall, Batavia, Brockport, Lockport, Avon, Newfane, Pittsford, Ransomville and Webster.

The building of about 1¼ miles of subway at Tonawanda and about 2 miles at Niagara Falls should be mentioned, not because these items in themselves are specially interesting, but because these subways will ultimately form links of a Niagara Frontier subway extending from Buffalo to Niagara Falls.

About $55,000 was expended in reconstructing and extending the toll pole line and wire plant.

Central Office Equipment Work

A general survey of the work performed during 1912 indicates that development is most noticeable in the extended use of more powerful ringing equipment and of superimposed ringing current; the gradual conversion of Rural Lines from Common Battery to Magneto; and the increase in trunk equipment—especially for inter-urban circuits connecting subscribers with nearby towns. Included in the work of 1912 are the following principal items:

1. Replacement of old Central Office Equipment at Medina and Salamanca with new No. 10 equipment.

2. Important additions at exchanges listed below; the prominent features in each case being increased Toll facilities and provision of standard Magneto Rural Equipment:

Jamestown, Brockport, Olean, Dunkirk, Albion, East Aurora, Lockport and Niagara Falls.

3. Substantial increases in either power or ringing equipment, or both, at numerous common battery offices, including the following:

Buffalo—Crescent, Buffalo—North, Buffalo—Tupper, Buffalo—Oxford, Buffalo—Bryant, Rochester—Chase, Jamestown, Dunkirk and Batavia.

4. The provision of selective ringing at several offices where 4-party rates were established in Rural Districts.

The subscriber station equipment has been changed following Central Office equipment work where 4-party selective service has been inaugurated; where Rural Lines have been changed from Common Battery to Magneto operation; and where the use of superimposed ringing equipment has been introduced.

Private Branch Exchange Equipment

A steady growth has been maintained in Private Branch Exchange and Inter-communicating Systems.

Installations equipped for the full room capacity of the hotels were installed in the Sherman House and Humphrey House at Jamestown; and in the Olean House at Olean.

In Buffalo, a new 320-line Private Branch Exchange board has been placed in the Touraine Hotel. Miscellaneous P. B. X. additions indicate the prospect of important replacements or extensions of existing systems in the near future.

At the Hengerer Co.'s Buffalo Department Store, the installation of 12 telephone order positions has been followed by an increase of traffic, which rendered imperative a recommendation for a new Multiple switchboard.

Two other noteworthy examples of growth are the Systems of the New York Central & Hudson River Railroad Company and the International Railway Company.

Plant Supplies

An appreciable reduction has been effected in the Plant Supplies investment in the Division. The value of supplies on hand Jan. 1, 1912, about $390,000, has been reduced during the year by about $150,000, or about 38%. This reduction has been made possible by a careful study of the supply stocks on hand at various points and by close co-operation between the Storeroom Dept. and the working forces in the matter of ordering, delivering and disposing of material on the heavy estimate construction work.

Plant Maintenance

The establishment of the divisional functional organization in the early part of the year made possible studies and analyses of Plant Maintenance costs which, under the old organization, could not be carried out in so comprehensive a manner. These studies have resulted in increased efficiency in the maintenance work and have at the same time, with the better Plant conditions resulting from the construction work carried out during the year, operated to reduce appreciably Plant Repair costs.

Unfinished Work

Among the more important pieces of work which were under way at the close of 1912 and which will see completion in the early portion of the year 1913 are the following:

The erection of a 15-story office and Central Office building at the corner of Franklin and Church Streets, Buffalo.

New Exchanges and Toll Central Office Equipment for Seneca and Buffalo. Installation, well under way at the close of 1912; scheduled date of completion, June, 1913.

New Tupper Central Office Equipment. Coincident with the cut-over of this Equipment, the newly erected

Digitized by Google

building on Elmwood Avenue, Buffalo, will be occupied. Scheduled date for cutover is February, 1913. The cutover means the abandonment of the present Bryant and Tupper Offices.

Outside Plant and Central Office work necessary to complete establishment of new exchanges as follows: Gasport, East Rochester, North Collins and Silver Creek.

Central Office and Outside Plant work at Gowanda and South Dayton.

P. O. JACOBS,
Division Superintendent of Plant.
December, 1912.

Traffic

DURING the year 1912 many changes have taken place in the Western Division, and in furnishing a review of the results accomplished I shall try to touch briefly on the most important.

Between January 1 and December 1 we have added 3,066 lines and 7,339 stations, making a total of 39,244 lines and 85,158 stations in service on December 1. These stations are operated from 64 Company operated and 25 Agency offices by a traffic force of 1,295 people. In order to handle properly the increased toll and local circuit trunk business, 83 toll trunks were added to the toll plant while 119 circuit trunks were added in the multi-office districts. Ring-down trunks in the city of Buffalo have been replaced by circuit trunks, all local business now being handled over circuit trunks.

During the year we have added to our organization a Division Traffic Engineer. This has effected a real saving of time in handling engineering work, as prior to this appointment a large portion of the work now performed by him was forwarded to the Traffic Engineer in New York. In addition to caring for central office engineering, he is responsible for the organization of central office forces and the supervision of the new peg counts put into effect this year.

New common battery offices have been installed at Salamanca and Medina; also 30 subscriber positions and 19 toll positions of switchboard have been added at the various offices throughout the Division. Special rural line equipment for operating rural lines on a magneto basis has been provided at Medina, Albion and Olean, and plans have been made for similar equipment to be placed in the Abbott office, Buffalo, to take care of Lackawanna and Garden lines.

Special equipment for wrong number observations has been installed in all Buffalo and Rochester offices. Lamp caps throughout the Division have been standardized.

At the present time active work is under way preparing for cutting into service during the latter part of February the new Tupper office with an initial equipment of 61 "A" positions and 10 "B" positions to take the place of the present Bryant and Tupper offices. A new Seneca office with an initial equipment of 57 "A" and 15 "B" positions to replace the present Seneca office, and a new Toll Board at Buffalo with an initial equipment of 13 recording and 65 line positions to handle business at present taken care of at the Buffalo Toll Board and at the Buffalo office of the American Telephone and Telegraph Company are also under way.

The actual operation of the Gowanda and South Dayton central offices, which have been acquired by purchase, will be begun very shortly, and new central offices will be established at Youngstown, East Rochester, North Collins and Gasport to serve territory which is now only partially developed. Canandaigua, Victor, Penn Yan and Naples offices were transferred from the Central to the Western Division, and the offices at Frewsburg and Gerry were acquired by purchase. A central office has also been opened at Silver Creek.

The work of providing ample retiring room facilities has been continued, and practically all central offices are now provided with satisfactory quarters.

Very satisfactory progress has been made in establishing cordial relations between subscribers and the Traffic Department. This has resulted in a 45% decrease in the number of written complaints as compared with the year 1911. Several letters have been received from subscribers commending the service, in one case in particular where an operator summoned the police in time to prevent a robbery and possibly serious injury to the subscriber. This has already been commented on in *The* TELEPHONE REVIEW.

During the past year much closer relations have been established with private branch exchange subscribers and there has been a very large increase in the number who secure their attendants through the Traffic Inspection Department. Efforts have been made to increase the efficiency of the Public Telephone attendants, and special emphasis has been laid on courtesy and efforts to please patrons.

A special campaign has been made in Buffalo to educate subscribers to the advantage of placing toll calls by number instead of for a particular person. The Traffic Chief and the Buffalo Toll Chief Operator have given this feature their personal attention, with the result that while only 21% of the total toll traffic was passed by number during January, 1912, 65% of the total toll business was passed by number during July. Subscribers have appeared to be very favorably impressed with the advantages of this method of handling business and it is hoped to secure similar results throughout the Division.

The use of fictitious numbers, which was formerly very general in this Division, will be eliminated with the cutover of the new Tupper exchange, which will also involve the elimination of jack-per-station lines in Bryant and Tupper offices.

In substance the work of the year may be summed up by the statement that considerable progress has been made toward the perfecting of the general ideas and methods previously adopted.

J. J. WELCH,
Division Superintendent of Traffic.
December, 1912.

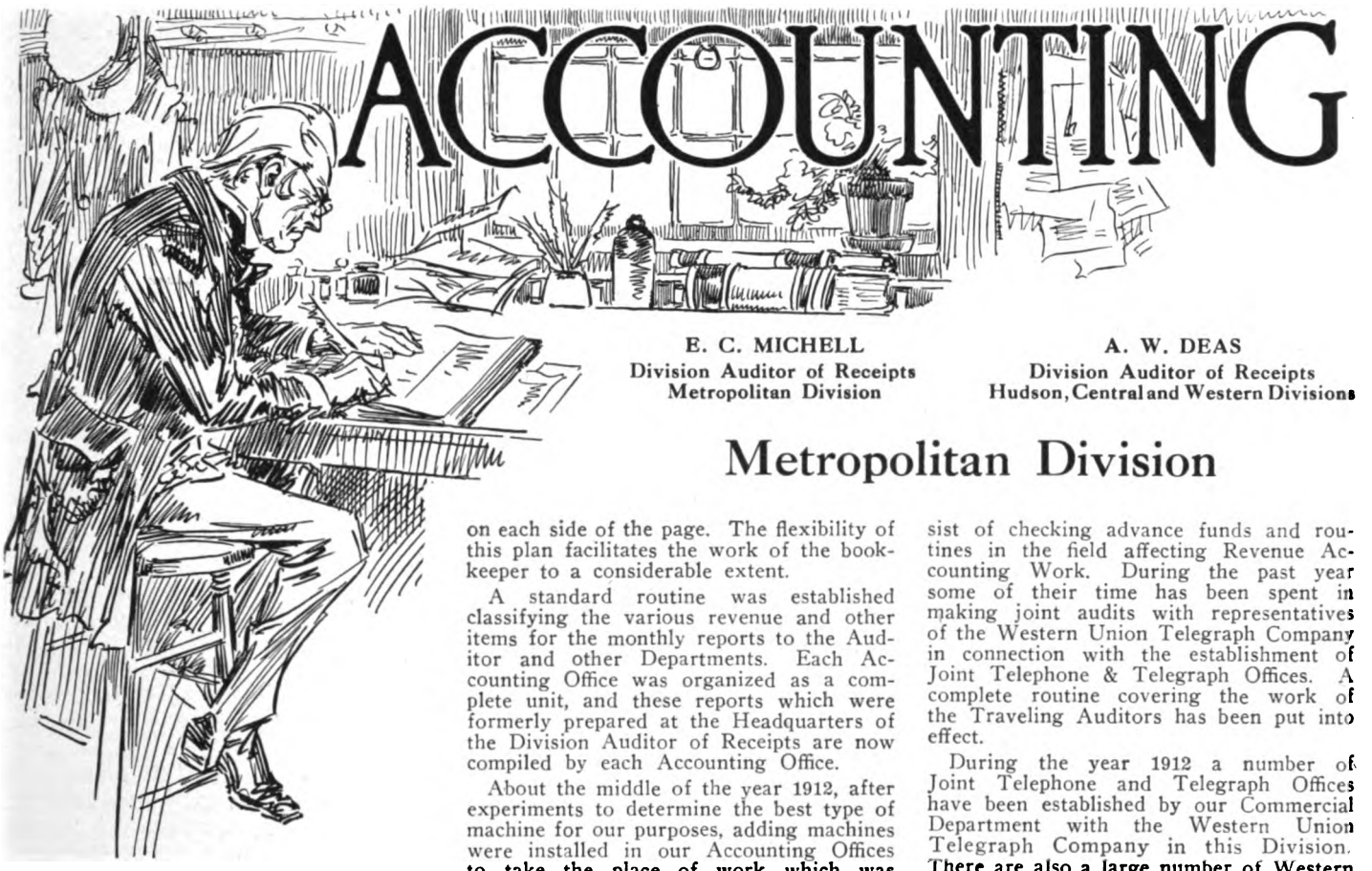
Cured a Toothache

"I couldn't have attended to your teeth today, if it had not been for the telephone," said a prominent New York dentist to a patient.

We don't suppose the patient cared a rap about that part of it, so long as his suffering was relieved, but some dentists are like barbers are said to be and talk a blue streak to their victims, who may listen or not, as they are able.

The interest of the patient was aroused in this instance, however, for the dentist went on to say: "You are the fourth case I have treated during a broken appointment. It used to be that when appointments were made ahead, the dentist would never know when one was to be broken, and many an hour was lost in waiting. Now everybody has a telephone, and if my patients do not arrive on time, I call up and ask if they are coming. Usually, they notify me; that is what happened this morning; otherwise, I could not have attended to you."

Digitized by Google



ACCOUNTING

E. C. MICHELL
Division Auditor of Receipts
Metropolitan Division

A. W. DEAS
Division Auditor of Receipts
Hudson, Central and Western Divisions

Metropolitan Division

THE Revenue Accounting Department in the Metropolitan Division must keep its work up to the highest point of efficiency at all times. The great volume of both local and toll traffic to be handled, due to the rapid development of the business and the peculiar geographical position of New York City with its vast industrial and commercial enterprises and its relation to the business and social life in the surrounding suburban territory, makes the problem a complex and difficult one requiring continual study in order to meet the increasing demands of the future.

With the development of the business, conditions constantly change, so that our system of accounting must be flexible to provide adequate facilities for the economical and efficient performance of the work and proper co-operation with the work of other Departments of the Company.

During the year a number of special studies of different subjects were made to determine the best method to be employed on the work and the following are some of the principal changes that have resulted therefrom:

In January, 1912, new Ledgers were opened for subscribers' accounts, a single account to each page; whereas, formerly the Ledger pages provided for an account on each side of the page. The flexibility of this plan facilitates the work of the bookkeeper to a considerable extent.

A standard routine was established classifying the various revenue and other items for the monthly reports to the Auditor and other Departments. Each Accounting Office was organized as a complete unit, and these reports which were formerly prepared at the Headquarters of the Division Auditor of Receipts are now compiled by each Accounting Office.

About the middle of the year 1912, after experiments to determine the best type of machine for our purposes, adding machines were installed in our Accounting Offices to take the place of work which was formerly done in longhand.

In September, 1912, the two Accounting Offices located at 81 Willoughby Street, Brooklyn—viz., the Long Island Accounting Office and what was then known as District No. 1 for the accounts in Lower Manhattan—were consolidated under one supervision. This office, which is now known as the Brooklyn Accounting Office, handles subscribers' accounts for the Long Island Division and those on Manhattan Island from approximately Fourteenth Street to the Battery; also the billing of Miscellaneous Accounts; Special Accounts—such as railroad, United States and Municipal Government Accounts; and the checking of public telephone station records for the entire division; also the checking and reporting to the American Telephone & Telegraph Company of long distance calls for Manhattan-Bronx and Long Island.

With the increase in the coin-box type of service in Manhattan-Bronx, the Commercial Department organized their collection force with headquarters at the Plaza Commercial Office, which is in the territory of the Murray Hill Accounting Office. In order to facilitate the work of both Departments, these accounts were segregated in the Murray Hill Accounting Office. A complete and comprehensive routine for the handling of this business has been established.

The work in the Bookkeeping Department has been facilitated by a rearrangement of the Toll Work so as to obtain a closer inter-departmental co-operation. This plan was first thoroughly tested out in one Accounting Office and the results obtained were so satisfactory that the plan has been generally extended.

Since July 1, 1912, the Traveling Auditors have reported to the Division Auditor of Receipts. Their duties principally consist of checking advance funds and routines in the field affecting Revenue Accounting Work. During the past year some of their time has been spent in making joint audits with representatives of the Western Union Telegraph Company in connection with the establishment of Joint Telephone & Telegraph Offices. A complete routine covering the work of the Traveling Auditors has been put into effect.

During the year 1912 a number of Joint Telephone and Telegraph Offices have been established by our Commercial Department with the Western Union Telegraph Company in this Division. There are also a large number of Western Union Operated Offices which report telegrams to be billed to our subscribers each month. The growth in this class of business clearly indicates that the scheme is popular with the public and is meeting their needs.

There has also been a considerable growth in the number of subscribers' accounts; about 37,000 having been added during 1912.

The Company expects and is entitled to accuracy, reliability and intelligence in the performance of our work. The splendid results obtained speak well for the employees of the Revenue Accounting Department. Changes have been made and we must expect them in the future, as only in this way can we keep pace with the needs of the Department.

Each Accounting Office has assumed its full share of responsibility with a loyalty, enthusiasm and interest which is not discouraged by any temporary difficulties produced by the introduction of improved methods of doing the work; and while we may expect that 1913 will be just as busy a year for us as 1912 has been, we look forward to the opportunity which may come to each one of us with a courage and confidence born of an earnest desire to serve the Company faithfully and efficiently—first, last and all the time.

E. C. MICHELL,
Division Auditor of Receipts.
December, 1912.

Digitized by Google

Up-State

THE year 1912 has been a very busy and active one for the Up-State Revenue Accounting Department and the records of the work accomplished show a very satisfactory progress in all its subdivisions.

The Revenue Accounting Department Up-State handles subscribers' accounts in the territory extending North and West from the Orange and Putnam County lines and includes the whole upper portion of the State of New York. This large territory contains 52 Counties and approximately 45,000 square miles, or about 95% of the area of the State. In it are situated 255 central offices, approximately 224,000 Company Operated Stations and 84,000 Connecting Company Stations, a total of about 310,000 Stations.

During the past year we have made considerable progress in the adoption of Standard Routines and methods and have almost complete uniformity in the work of our several Divisions. This progress has resulted in an ability to handle more work, with a consequent result of a decrease in the unit cost of doing the work. It is more or less impossible to give a complete resumé of the entire year's work in an article limited as this must necessarily be, so reference is only made to the more important items of our work.

In the earlier part of the year the Up-State Accounting Centres took over the billing of all miscellaneous items from the Auditor's Office, to the end that all the bills against the patrons in each Division are rendered by the Accounting Centre of that Division.

The increase in accounts over the previous year has been about 20%. We now handle about 190,000 accounts each month.

With joint facilities for handling telegrams and the constant increase in toll messages, our toll department work has increased to considerable extent. The handling and reporting of Telegraph business has been one of the principal changes in our work during the year. In the beginning of the year we merely checked reports of Joint Offices, but later on we took over the actual making up of these reports. The benefits of joint facilities are appreciated by the public and an increased volume of telegraph business may be expected.

In the middle of the year the Traveling Auditors were transferred to the Revenue Accounting Department. The force was increased and work systematized so that at the present time the auditing of the Advance Funds and departmental work affecting Revenue Accounting receive more systematic and prompt attention, the result of which is plainly discernible in the present condition of accounts.

For the year 1913 we propose to bring into uniformity the small number of minor differences and details, so that our routines and regulations for performing our work will be alike in the three Divisions. It is estimated that the accounts for the year 1913 will be increased by 25,000, and we are in the process of providing the facilities for taking care of this number.

It is gratifying to record the loyalty and co-operation of the employees of the Up-State Revenue Accounting Department and the spirit of cheerfulness with which they have taken up and handled each of the new problems in connection with our work for the year 1912.

A. W. DEAS,
Division Auditor of Receipts.

December, 1912.

Selling Telephone Directory Advertising

THE following is an outline only of a few ideas which have enabled me to get business for the telephone directories, and my experiences may be of service to others in the advertising campaign for the February books.

In this work I do not depend so much on "salesmanship" as on common sense,—for example, I never solicit from department stores, knowing they depend upon advertising which may be changed each day, nor would I solicit from a "branch" establishment which would have to get an "O. K." from headquarters. I select my prospects mainly from advertisers, those who already have acquired the advertising habit, who depend largely upon the telephone for their patronage, and more especially those advertisers who do a wide rather than a strictly neighborhood business, such as Electricians, Auto Renting concerns, Moving Van people, Real Estate Agents and Brokers, Employment Agencies, and such other lines of business as would be called upon in emergencies.

In canvassing, I almost invariably take my first try-out over the telephone, explaining to the prospective advertiser that we are about to go to press with the February issue of the Telephone Directory, for instance, and that we have such-and-such space which I think would be especially suitable for his advertising. I always make a point of telling him *where* the space is and *why* he should advertise there.

If I am able to awake any interest, I ask for an opportunity to explain the matter more fully at a personal interview and carefully save my most convincing arguments for this occasion, for it is then that the sale must be actually effected. In this way the telephone saves me many fruitless trips.

In this final interview where the actual sale is made, it is very difficult to lay down any specific rules. It is to me the most interesting part of the work, because during the instant which elapses between entering a man's place of business and beginning to talk, one must not only size him up, but also line out a plan of talk which will appeal to his particular understanding. In many cases I have been turned down at this interview and on the way back to the office I have thought out a new argument, presenting the subject from a different angle, and upon calling the man up again, have been able to convince him and have subsequently secured his contract.

In selling a man advertising space, I try to realize that I am not selling him a tangible *necessity* such as telephone service, but rather something which should be beneficial to him if he has the courage to try it. As a last resort, I often play upon the speculative instinct which most advertisers possess, intimating that if he has any *doubt* of the wisdom of this advertising (I already know he has some doubt) it would cost him only so-and-so to take a chance and try it. I rarely quote circulation figures or other technical matters, and never under any circumstances assure results.

It seems to me also very important to make the advertisements, when secured, as interesting as possible. I try to feature a man's business rather than his name and try to get the general appearance of each advertisement out of the rut of the commonplace, because your renewal contract depends very largely upon whether the advertisement has been noticed and commented upon by customers or friends of the advertisers.

FRANK HABBERTON, Manhattan.

Digitized by Google

Engineering Department

H. C. Carpenter, Engineer

DURING 1912 a number of large buildings have been completed or nearly completed. The Walker-Lispenard building, which is the largest telephone building in this country, will be fully completed and ready for office occupancy in the early spring of 1913. The three floors to be occupied by the Long Distance equipment are finished and the Western Electric Company is now installing the switchboard. This building is 17 stories high, and each floor contains about 13,000 square feet. It encloses a space of five and a half million cubic feet. About 30 caissons were required for the foundations. Five of these were about 40 feet square and 23 feet high and had the largest superficial area of any caissons ever sunk in New York City. They were built above ground, and it took four days to sink each caisson to its final position. No wood enters into the construction of this building; all of the doors, window sash and trim are of metal, and the floors cement. Six million bricks and 6,500 tons of steel were required in the construction of the building. A very complete ventilating plant has been provided, which delivers 180,000 cubic feet of air a minute.

The new 6-story central office building for East 37th Street, Manhattan, has been opened, and a new 8,000-line switchboard was cut into service on Dec. 29. This switchboard relieves the Bryant, Greeley and Madison Square boards.

The Tupper building in Buffalo is substantially completed, and the new 15-story headquarters building in Buffalo will be within a few months. In both of these buildings the Western Electric Company is now installing the switchboards.

The new building in Hackensack, New Jersey, is finished, and here also a new switchboard is being installed.

Besides the above, we have completed a new building in Salamanca and made extensive alterations and additions to the Utica, Watertown and Orange buildings.

During 1913 we have a large number of new buildings and additions to existing buildings scheduled. Among these will be in Brooklyn a new building for South, a new building for Williamsburg, and additions to Bay Ridge, Bushwick and East New York; an extensive addition to the Main building in Rochester; an addition to the Schenectady building; and an addition to the Howard building in Buffalo.

During 1912 we have started the work of making alterations to some of our older buildings to make them more fireproof. This work will be continued in 1913. Practically all of our central office buildings are of fireproof construction, and they have all been built in accordance with the best methods of construction known at the time the buildings were erected. Considerable advances have been made in the methods of fireproof construction in the last 10 or 15 years, so that there are means now available for making buildings fireproof which were not available when these buildings were erected. It has always been the policy of the Company to take every precaution in building work to safeguard the lives of its employees and to prevent interruption to service, and continuing this policy we are planning to make such alterations in our old buildings as seem advisable in view of the improved methods of fireproof construction which are now available.

During the year nine magneto switchboards were replaced with common battery; additions were made to fifty common battery boards; and four new common battery boards were installed—a total line equipment of about 49,200 lines of common battery equipment have thus been cut into service.

In conjunction with the Commercial Engineers we have made fundamental plans for a number of cities and have made partial revision of several others. In some parts of our territory—notably in Brooklyn and the Bronx—real estate development is going on so rapidly and in directions so hard to anticipate that it is difficult to make a comprehensive fundamental plan which can safely be followed for more than three or four years.

Nearly 500 work estimates have been reviewed and prepared for submission to the Executive Committee.

In conjunction with the Plant Engineers we have done a very considerable amount of toll transmission work, planning toll cables for Buffalo and Albany, and a number of relatively short cables in places where it is impracticable to continue toll lines in open wire. Practically all of these toll cables are of the duplex type recently developed by the American Telephone & Telegraph Company, through which phantom circuits can be worked.

Seventeen agreements have been negotiated during the year with electric light and power companies for the joint use of pole lines.

The consolidation of the plant of the purchased companies with our own in the Hudson and Central Divisions has involved the Engineering Department in a large amount of work. In very many cases it is necessary, before planning for these consolidations, for the Engineering Department in connection with the other operating departments to make a comprehensive engineering study of the best method of consolidation and of serving the district after consolidation. When this study is completed and the best method of consolidation determined, in practically every case it is necessary to make additions to the switchboards and often to the buildings, and in almost every consolidation there are some difficulties in connection with working the purchased plant in with our plant that require special study and consideration. This consolidation work is nearly completed in the Central Division and is well under way in the Hudson Division. The following is a list of the towns where consolidation has been effected during the year:

Poughkeepsie	Baldwinsville
Wappingers Falls	Elbridge
Catskill	East Syracuse
Kingston	Liverpool
Rosendale	Otisco
Shokan	Tully
Schenectady	Weedsport
Valley Falls	Utica
Schuylerville	Clinton
Greenwich	Frankfort
Ballston	Ilion
Lake George	Herkimer
Warrensburg	Mohawk
Newburgh	New Hartford
Marlboro	Newport
Milton	Rome
Syracuse	Whitesboro

No review of the work of any department would be complete without a word of appreciation for those who have worked so hard and faithfully to accomplish the work.

H. C. CARPENTER, Engineer.
December, 1912.

Digitized by Google

The Idle Hour

The Season for It

We sneeze and find we've caught a cold,
And wonder who could be so bold
To wish the horrid thing on us;
'Tis really 'nough to make one cuss.
We tarry home against our wills
A-taking nasty quinine pills;
But after doct'ring for a while,
Recover "Voices with a Smile."
—Miss Helen Cutler, Murray Hill Commercial.

"The Wireless Tilephun"

WRITTEN FOR "THE TELEPHONE REVIEW."

ACROSS the court, in Hogan's flat,
There is a tilephun,
And whin I wants to, I use that,
And so, bedad, need none.

No wires mar me parlor wall,
No bells disturb me sleep,
I'd not like that, at all, at all;
And Hogan's line comes cheap.

Whin any of me frinds at all,
Call "Riverside-Two-Tree,"
(That's Hogan's line) thin he will call
Across the court, to me.

I says to Nora (she's me "Hun"):
"We are a lucky pair,"
We have the Wireless Tilephun,
An Hogan pays the fare.

H. K. R.

Purely Professional Reasons

Dear Gravy:

The other day a woman asked me why telephone installers are all such queer acting men. Here are some of the questions:

1—"Gee, what a lot of junk you carry."
2—"Can't you give us a longer cord?"
3—"Will we be in the new directory?"
4—"Are you the man that put the 'phone in 'telephone'?" (Coy thing!)
5—"O my! What a long number!"

ONE OF 'EM.
—*Buffalo News.*

Waiting

A junior officer on a warship was dressing to go ashore and sent for his attendant, a newly recruited negro boy.

"Sam," said the officer, "give my compliments to the executive officer and tell him I desire permission to go ashore"—which is the formality.

"Yes, suh," said the boy, who stood at attention and did not leave.

"Well," said the officer sharply, "why don't you go?"

"Why, suh," replied the boy, "I ain't heerd no compliments yit!"—*Saturday Evening Post.*

Just Luck

"Tommy," said his brother, "you're a regular little glutton. How can you eat so much?"

"Don't know. It's just good luck," replied the youngster.—*Christian Intelligencer.*

Made to Order

Hungry Girl (one of a party of tourists who have arrived late at a country inn)—No fresh eggs? But you've got hens, haven't you?

Innkeeper's Wife—Yes, but they're all asleep.

Hungry Girl—Well, but can't you wake them?—*Fliegende Blatter.*

Practical Point of View

The man watched his wife as she entered the voting booth.

"Do you like to see a woman mingling with a lot of men at a polling place?" inquired a bystander.

"It depends a great deal on the way she votes," said the husband, who was a practical man.—*Cleveland Plain Dealer.*

Wants Holes Removed

(*Wyoming County Herald*, Arcade, N. Y., Oct. 11, 1912.)

The Otsego *Journal* prints the following, which is probably the most unique specimen in existence and shows how serious a thing it is to be President of anything, even a small telephone company:

south new berlin, sep. 9, 1912.

Mr. Youreye Peersawl, present telfone co.

Deer sur: i want you to git them dam telfone polds offen my lan or i will chop em down an i heerby notiphy you to get em offen my lan too wunst and if you send enny boddy on my lan to fix enny wires I will prossycewt you to fullxtent of the law for trespis and i give you notis if them polds ain't got offen my lan in reesble time thay will be cud down.

Truly your,
Lemuel Spraker.

P. S. I also give notis you must move holes also offen my lan. L. S.

A Telelullaby

[Mrs. —— was at a whist drive at Steubenville, O., when she received a telephone message from her nurse that the baby had been crying for an hour. . . . Soon afterward the guests were surprised to hear Mrs. —— singing a lullaby into the transmitter. Telephone lullabies are now becoming quite common at this resort. —*Daily Express.*

Oh, hush thee, my babe, from thy wailing desist.
Thy mother is busy whist-driving, so whist!
But, if thou must still raise a piteous moan,
She'll sing thee a lullaby over the phone.

Secure in thy cradle, what hast thou to thy ear,
And when thou art wafted to Hushaby Land
Then mother can go and continue the hand.

Small cause for thy tears or thy infantile dumps,
For mother is holding a fistful of trumps;
Her score is colossal, and, sweet—art thou there?—
Of all that she wins she will give thee a share.

Nay, try to forget there's a pain in thy tum,
And hark to the wires, how they buzz and they hum;
For thee are they making that music—hello!—
And baby shall have it wherever I go.

Sweet slumber attend thee, with visions of bliss;
In token I send thee this telephone kiss.
Weep not, then, my angel, but smother that cough;
They're calling for mamma; so, baby, ring off.—*Punch.*

I Want to Be the King

By Thos. J. Marrin

N. Y. Plant Accounting Dept.

WHEN Billy Lynn, and I, and Hiram Bell
Would play the boyish games that all the lads play,
Our folks were often startled to hear our battle yell,
And, rushing out, would part us for the day.
Each king would fight to mount his throne of hay;
And scorning bells of Fool, or Prince's ring,
Would punch and bite, and gritting teeth, would say:
I want to be the King.

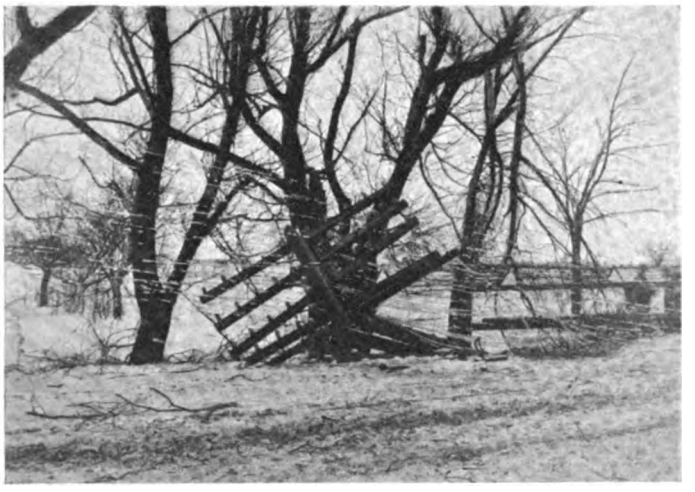
I'd pledge my all for Lynn, and do the same for Bell;
They're both true blue and made of finer clay,
And when our business worries ease up for a spell,
We meet to save old friendship from decay;
Our jolly board all future cares allay,
And yet, if Hi or Bill could have their fling
And, like me, tell the truth, I know they'd say:
I want to be the King.

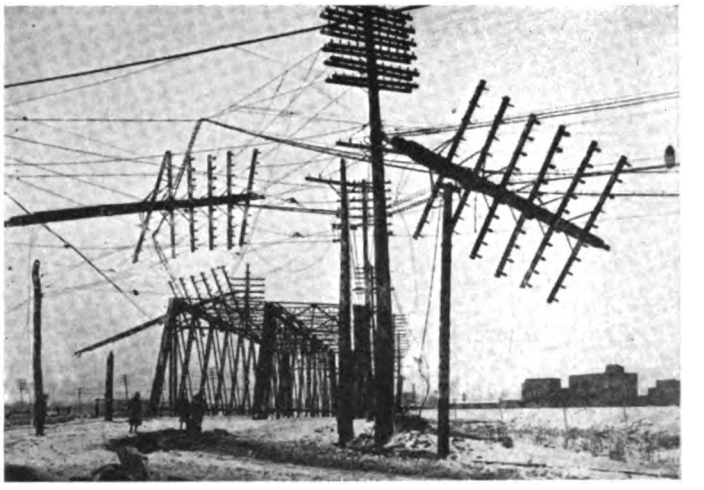
If Bill Lynn spends a hundred in trying to excel,
Hi Bell will spend two hundred for just a small display;
And next, of course, I am the host with empty purse to tell
Of how my small reserve fund shrunk that day.
And yet we're often lonesome and like to meet this way.
It does us good and makes our three hearts sing;
It squares our jaws and puffs us up and urges us to say—
I want to be the King.

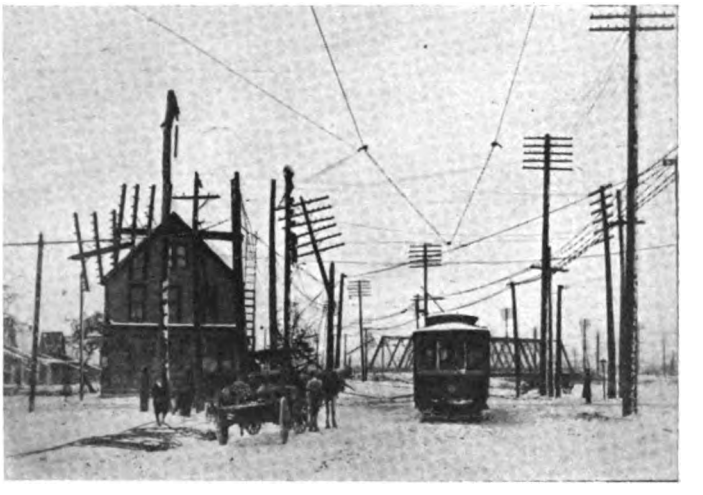
ENVOY.

O Prince of Power, mark well this simple lay;
The staves of man's ambition loudly ring,
For even from the dragging mire a voice will ever say:
I want to be the King.

Digitized by Google







SOME EFFECTS OF THE STORM IN THE WESTERN DIVISION JANUARY 3 TO 7, INCLUSIVE.

Worst Storm in Years in Western New York

Western Division Has Five Days of Snow, Rain, Sleet, and Trouble

ON FRIDAY afternoon, January 3, there started throughout Western New York a record-breaking storm which lasted until Tuesday night.

The storm seemed to come in two editions and the trouble likewise.

Not many details are yet available regarding the work of restoring the service in the outlying districts, but in all it is estimated that fully 1,400 poles were down on toll and exchange lines throughout the Division. In some cases the wires were found coated with sleet almost an inch thick.

As always has been the case, the Plant Department proved itself equal to the occasion.

Beginning early Saturday morning gangs were out, working day and night to restore service.

By Monday conditions were considerably improved, but then came the sleet on Tuesday and the breaks started all over again. An idea can be formed of the damage done by the enormous weight and strain on some of the wires by what occurred on one of the long distance leads from Rochester to Avon, a 70-wire line for a section of about five and one-half miles, on which every pole was down, about 217 in all.

Perhaps the story of how service between Buffalo and Tonawanda was restored is one of the best illustrations of how the Plant Department met difficulties. Here were two overhead leads. Saturday morning they were both down.

Fortunately, late last fall a subway had been completed and a cable placed from Buffalo to within about three miles of the Tonawanda office. It was decided that the best and quickest way to restore service was to bridge the gap with temporary cable.

Subway and cable gangs were rushed to the scene, starting work about noon on Saturday.

Through the rain, the mud and the sleet these men worked Saturday afternoon, Saturday night, Sunday and Sunday night, and Monday morning people of Buffalo were once more talking to their friends and transacting business in Tonawanda the modern way—by Bell Telephone.

Many of the men in these gangs worked thirty-six hours without rest, being supplied with sandwiches and coffee brought from Tonawanda.

In one section, the subway was filled with water, but the men were not to be balked, so for several thousand feet the lead-covered cable was stretched along the surface of the ground—anything to restore service.

In another case, in the same section, about one mile of 200-pair 19-gauge cable had been placed, but not spliced. This cable was strung on short poles which successfully stood the strain. Along this line were several important P. B. X. subscribers. Working all Sunday night a gang of splicers got this cable into service and Monday morning these big factories were again in communication with Buffalo.

So the story goes. The Plant Department may well feel proud of its men.

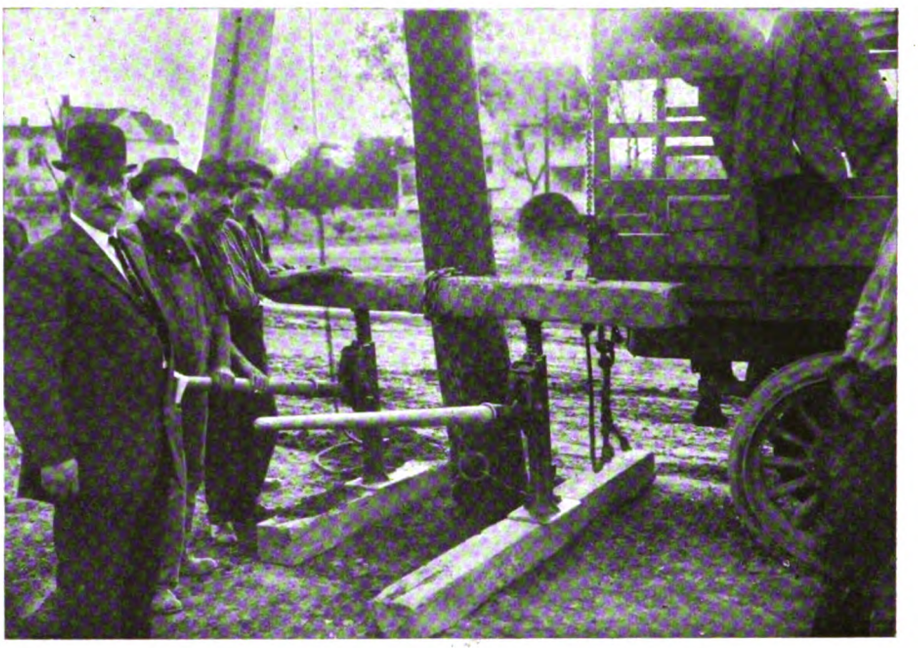
Digitized by Google

Moving Pole Lines by Means of "Jacks"

ALL readers of *The* TELEPHONE REVIEW who are familiar with outside plant matters will be interested in a new method employed on Long Island in moving a pole line back to the curb line on account of street widening. The location is on E. 17th Street, Brooklyn, where the street was widened ten feet. There was a row of trees between the old location of the poles and the new curb, which were not cut down until the new curb was in place, the curb preventing the usual method of trenching being followed.

Two 15-ton jacks were used to lift the poles out of the ground. It was found unnecessary even to dig around the poles to loosen them up. A 3-ton auto truck equipped with power winch and pole derrick was used to swing the poles to the new holes back of the curb. The entire line, consisting of twenty-three poles, carrying a 50-pair distributing cable with terminals on nearly every pole, was moved by a gang of nine men in a little less than two days without disturbing the cable or strand in any way, except at the point where the cable spliced to the main aerial cable lead. The only other work necessary was the lengthening or shortening up of the drop wires.

The use of jacks for moving poles is one that promises to have great value and it is doubtful if it would be economical to employ again the old method of trenching if the distance poles are to be moved exceeds more than two or three feet. They are also of value in removing good poles in order to preserve their entire length, the expense of digging out being entirely saved.



TWO 15-TON JACKS REMOVE THE POLE FROM THE GROUND.

A 3-TON AUTO TRUCK EQUIPPED WITH POWER WINCH AND POLE DERRICK SWINGS THE POLE TO THE NEW HOLE.

PORTION OF POLE LINE AFTER BEING "TRANSPLANTED" BACK OF NEW CURB LINE WITHOUT DISTURBING THE AERIAL CABLE.

Digitized by Google

Partial Summary of Outside Development Work, Planned or Under Way

Medina, N. Y.

ABOUT one year ago the new common battery switchboard in Medina was cut into service, replacing the magneto board which had been serving the Medina district, and in connection therewith subway was built and the feeder cable plant was placed underground in the central portion of the town.

At that time plans were made for an aerial cable distributing system, and these plans, which provide for placing over six miles of cable, have recently been approved and an appropriation of about $25,000 has been authorized for the work.

Upon completion of this work Medina will have a complete and up-to-date telephone plant, both in the central office and outside and second to none for a town of its size.

In addition to the above work a large amount of pole line and aerial wire construction has recently been completed in the Medina district to provide facilities for farmer-line service in the West Shelby, East Shelby and Millville sections where there is a large demand.

There are about 1,300 telephones in the entire district served from the new switchboard and in the town of Medina alone there are approximately 13 telephones in service to every 100 population, or an average of about 2 telephones to every three families, this high development clearly indicating that the Bell service is fully appreciated by the residents.

During the past two years the growth in telephones in this district has been at a rate of more than 10 per cent. per annum, and it is expected that a rapid increase will continue and with the new plant facilities it will be possible to take care promptly of new business in practically all sections of the district.

Gasport, N. Y.

GASPORT now has a complete local central office, this system replacing the former service from Lockport and Middleport. The cut-over took place an January 2, 1913.

$10,700 was appropriated for this work, which included the placing of nearly two miles of cable, with the necessary pole line and wire work.

Additional distributing pole lines and aerial wires will be constructed as new contracts are secured in the various sections of this district not reached by the above plant, and with these facilities it is estimated that the number of telephones will increase more than 100 per cent. during the next three years.

This is a rich farming and fruit growing section and upon completion of the Barge Canal it will probably develop very rapidly.

East Rochester

A COMPLETE telephone system is to be established in East Rochester, New York, under two estimates recently approved by the Executive Committee, totaling about $11,800.

A 3-position switchboard will be installed, with equipment for 200 subscriber lines, and feeder and distributing plant will be constructed which will include nearly three miles of underground and aerial cables.

This is a rapidly growing manufacturing community, and it is estimated that with the proposed plant facilities the number of telephones in the new district will be more than trebled during the next three years. This district includes East Rochester and Penfield villages and part of the Townships of Penfield, Pittsford and Perinton.

Staten Island

AN appropriation of about $75,000 has been authorized by the Executive Committee to cover the construction of about 23 miles of cable in the West New Brighton, Tompkinsville and New Dorp central office districts.

During the past few years a large amount of distributing cable has been placed in these districts, but the growth beyond these cables and in new development sections has been so rapid that it has been necessary to place large numbers of aerial wires to care for the new subscribers.

The proposed work will replace these wires with cables of sufficient size to care for a large further growth and, with the existing cables, will provide a very comprehensive distributing plant in practically all sections where the present development warrants cable construction.

Poughkeepsie, N. Y.

WITHIN the past two or three years large additions have been made to the outside plant in Poughkeepsie, and besides providing increased facilities for growth, this work has greatly improved the appearance of the plant by the substitution of cables for aerial wires and the placing of a considerable amount of the plant underground.

The plants of the Dutchess County Telephone Company and the New York Telephone Company were consolidated a short time ago and in connection with combining the lines in one cable system, it has been planned to remove all duplicate plant, construct new subway and place about eight miles of cable.

Subway will be built on Main Street between Cherry Street and Grand Avenue, and as soon as underground cable is placed all of the aerial plant will be removed in this section. This will clear Main Street entirely of all aerial telephone plant throughout its length from Front Street to the City Line. In addition, about 400 duplicate poles and more than one hundred miles of aerial wires will be removed throughout the city.

Upon completion of the proposed work a complete all-cable distributing plant will be provided in practically all sections of the city and adequate facilities will be available for a large growth.

A number of high class residence sections are being developed and it is probable that the growth in telephones in these sections will be very rapid, while in the business and manufacturing sections the present steady increase is expected to continue.

Monmouth County

PLANS have recently been completed for placing about thirteen miles of feeder and distributing cables in Keansburg, Atlantic Highlands, Sea Bright, Asbury Park, Spring Lake and Point Pleasant, and an appropriation of about $48,000 has been authorized for the work.

The work in Keansburg will include all of the outside plant construction necessary in connection with the establishment of the new Keansburg central office district which it is planned to open within a few months.

In the remaining districts considerable cable work has been done during the last two or three years and the main feeder systems have been constructed. The new work will consist of additional feeder cables and extensions of the cable plant into sections where a steady growth is being secured and the aerial wire leads have become heavily loaded. This work will provide facilities to care for a large further growth in these districts.

Digitized by Google

Connecting Company Notes

ONE of the most progressive connecting companies in the Hudson Division is that of A. H. Todd at Griffins Corners. This connecting company operates in the western section of the Catskill Mountains in the territory noted for its scenic attractions. A number of large summer hotels, boarding houses, several parks and groups of handsome cottages are scattered through this section. The demand for the efficient telephone service which Mr. Todd has supplied has been so great that during the past year Mr. Todd has opened a new exchange at Margaretville and established a summer central office at Pine Hill. This latter Pine Hill exchange it is proposed to run continuously, beginning this year. The business has grown to such an extent that Mr. Todd has decided to incorporate his holdings, and has recently filed the necessary papers under the name of the Fleischmann Telephone Company.

The central office building at Griffins Corners is being remodeled, and a 5-position multiple magneto switchboard has been ordered from the Western Electric Company together with full power equipment and a Chief Operator's desk. Sub-station equipment is being installed for direct and four-party selective ringing, which will supersede the eight-party selective system now in service. This Company's service has always been very satisfactory, and on account of the heavy toll traffic in the summer, particularly with New York, the A. T. & T. Company has provided direct Griffins Corners-New York trunks.

A PORTION of the building in which the Ausable Forks Central Office of the Keeseville Telephone Company is located was recently destroyed by fire. For a time it was feared that the entire building would be burned, but through the efforts of the Volunteer Fire Department the central office equipment was saved, although the switchboard was very badly soaked. As soon as the fire was under control the local central office force concentrated all their efforts on drying out the apparatus, and within ten hours practically all the subscribers were again in service and the building made habitable to the operators. Considering the conditions, the rapidity with which service was restored speaks well for the efficiency of the local force of the Keeseville Company.

IN the latter part of 1911, Messrs. VanVechten & McIntosh of Esperance, N. Y., secured a controlling interest in the Schenectady, Delanson and Esperance Telephone Company. Since that time a very considerable sum has been expended in new plant and equipment. A new standard trunk line equipped with copper toll circuits has been built from Esperance to Duanesburg with a number of spurs which feed practically all of the territory of this Company. A standard 100 line magneto switchboard has been purchased from the Western Electric Company and installed with complete equipment in new central office quarters. Several thousand feet of aerial cable have been placed and practically all of the sub-stations have been equipped with Western Electric instruments, and the wiring has been put in first class condition. All of the older pole lines have been rebuilt and are now in excellent shape. As a result of the good service and the progressiveness of the new owners of this Company, there has been an increase in stations of over 100% during the past year and with the completion of the outside plant work now projected, the number of subscribers' stations will soon reach the saturation point.

IN Cayuga County, southwest of Auburn, the Cayuga Southern Telephone Company is operating exchanges at Aurora and Poplar Ridge. This Company has recently executed a traffic agreement with the New York Company and acquired the Aurora Exchange of the latter.

THE Lewis and Hall Telephone Company, operating exchanges at Manlius and Oran has recently executed a standard traffic agreement. The Lewis and Hall Company has been connected with Bell lines for some time and operates in a very good farming section southeast of Syracuse. At Manlius, which is quite a manufacturing town, a new 2-position Western Electric switchboard with standard protective equipment has been installed and large additions made to the outside plant.

AT New Woodstock in the southeastern part of Onondaga County, the Cummings Telephone Company is operating an exchange which may fairly be called a model for good construction. Although the town of New Woodstock is small, there is considerable overhead cable plant and the surrounding farming territory is well covered with substantial open wire lines. In the central office the switchboard and terminal room equipment, of Western Electric make, are exceptionally well installed and maintained. The service is very satisfactory. The Cummings Company has been connected for Bell service since March, 1908, and has recently signed a standard agreement.

ONE of the first of the local companies to arrange for Bell toll service in the territory of the former Central New York Telephone & Telegraph Company was the Oxford Telephone Company, operating at Oxford. Mr. F. J. Dedrick has superintended the operation of the central office at Oxford for nearly 30 years, and has also been in charge of the local Western Union office during the same period. This is probably one of the oldest joint telephone and telegraph offices up-state, and may well be termed one of the Pioneers of this class. The Oxford Company operates principally within the Village of Oxford, while a large proportion of the farming territory surrounding this Village is covered by service lines which connect with the Oxford Exchange. This Company has also recently executed a standard connecting agreement.

EXTENDING for some 17 miles along the east bank of the Hudson and opposite the historic city of Kingston lies the territory of the Red Hook Telephone Company. Here the central offices of Red Hook, Rhinebeck and Staatsburg provide service for the beautiful hill country in which are situated the country estates of many of those prominent in the New York social and financial world. Many of the names appearing in the "Blue Book" are duplicated in the "Blue Bell" directory in this section, for in both may be noted the Astors, Morgans, Ruperts, Dows, Chanlers, Livingstons and numerous others. To supply satisfactory service to such subscribers who are accustomed to the unexcelled telephone conditions existing in New York City is indeed quite a task. When the question was put to Mr. Peter H. Troy, President and General Manager of the Red Hook Telephone Company—"Does your service suit them?"—the reply was—"They're pretty exacting, being used

Digitized by Google

to the best telephone service in the world, but we don't have any complaints. What is better, their demand for good service improves our service all along the line. You see, we get the habit and then try to treat everybody alike."

To supplement this good service during the past year, a large amount of construction and reconstruction has been finished. The overhead wires in the Villages of Red Hook and Rhinebeck have been placed in aerial cable. The line between Red Hook and Upper Red Hook has been much improved and several heavy trunk lines have been built. In addition new lines have been built to serve the territory which is tributary to these villages. A farmer line has been finished running from Rhinebeck 8 miles east to Enterprise and a new line has been built from Red Hook to Tiboli. During this year active development of the territory will be pushed, and other new lines and additional reconstruction are planned for. New copper circuits between Staatsburg, Rhinebeck and Red Hook are to be built to care for toll business. The line from Pleasant Valley is to be extended and the Rock City-Lafayetteville line overhauled. In the neighborhood of Cokertown, 6 miles east of Red Hook, the territory is to be developed from a new line which will follow the railroad right-of-way.

At Red Hook a new two-position Western Electric switchboard is being installed and all night service has been instituted.

With all this new construction and with the Company's belief in giving good service, the friendly attitude of the public and the success of the Company should be assured.

A Clear Line

THE Oneonta Daily Star, Oneonta, N. Y., has a special wire of the New York Telephone Company from that city to Albany, a distance of 82 miles, over which the night report of the Associated Press is transmitted to the publication. The wire is held open for thirty minutes at a time so that the full report may be received. So clear is the line that one evening when the Oneonta operator had left his desk for a few minutes he was suddenly startled by a loud "Hello!" Investigation followed. It was learned that the sender at Albany had returned to his instrument to open communication again with Oneonta. The spoken words were clearly heard by the Oneonta man who was at least six feet away from the telephone receiver. —IVAN H. THOMPSON, Telegraph Editor, Oneonta Daily Star.

The Telephone Society of New York

THE December meeting of the main section of the Telephone Society of New York was held at the United Engineers' Building, Manhattan, on Wednesday evening, Dec. 18. Despite the inclemency of the weather, there was an attendance of about 600, and the meeting was a most enthusiastic one.

The already large membership of the society was further augmented by the admission of 180 new members. By a rising vote it was decided to repeat the play "Examinations" presented by the society at the reception to the Telephone Pioneers of America on Nov. 14.

At the conclusion of the routine business, Mr. C. G. Du Bois, Comptroller of the American Telephone and Telegraph Company, introduced the principal speaker of the evening, Mr. E. K. Hall, Vice President of the New England Telephone and Telegraph Company, who spoke on "Doing Business with the Public."

Mr. Hall presented his facts and views in a most clear and interesting manner, urging upon his hearers the vital necessity of securing and holding the good will and confidence of the public. He emphasized strongly the importance of making the public feel that its wishes are paramount and will be observed, and urged each and every employee to do his part in giving absolute satisfaction to customers. No one is infallible and mistakes will happen, but all concerned should profit by them. If we do our work honestly and efficiently, our company will find the public a staunch defender, and the agitator will be silenced.

The speaker related several anecdotes which served to emphasize his points and hold the interest of his hearers. At the conclusion of his speech remarks appertaining to and emphasizing various phases of it were made by Messrs. F. H. Bethell, Vice President, New York Telephone Company; Gerard Swope, General Sales Manager, Western Electric Company; S. M. Williams, Manager Press Service, Western Union Telegraph Company, and H. B. Thayer, Vice President, American Telephone and Telegraph Company.

It has long been felt that Telephone Society meetings have been too formal and members were not afforded an opportunity to become acquainted. As an innovation a reception room was engaged on the fifth floor, and after the regular meeting the members gathered there and partook of refreshments and a general good time. The recently organized Blue Bell Orchestra which acquitted itself so creditably at the reception to the Telephone Pioneers made its first appearance since then and added greatly to the pleasure and enjoyment of the evening. The Blue Bell Glee Club was also on hand and regarding this organization no comment is necessary for all know it of old.

This innovation certainly proved itself a marked success. Anyone who was present and did not enjoy himself has only himself to blame. The members of the Reception Committee did everything in their power to make the affair successful and pleasant for all.

The January meeting of the Society will be held on the 22d. Mr. Thomas A. Watson, Alexander Graham Bell's co-worker in inventing the telephone, will speak on "Just Before and Just After the Birth of the Telephone." Members are urged to be on hand promptly in order that they may not lose any of Mr. Watson's address or the social features which will follow.

Central Section

THE Central section of the Telephone Society of New York met on the evening of December 17. In the absence of Chairman Elias, Vice Chairman Cleaves presided. After the brief routine business of the meeting, the paper of the evening, "Problems of Joint Office Management," was delivered by Mr. W. C. Sexsmith, District Manager for the Binghamton District, Central Division. Mr. Sexsmith was especially qualified to talk on this subject because not only does he supervise the two oldest Joint Offices in the Division, but he has eight all together and one more scheduled.

Mr. Sexsmith's paper, written most skilfully, was a mixture of humor, description of the real difficulties of this newer work, and suggestions. At its conclusion he handed to the Chairman a set of questions, admirably selected, to be answered by the Division Heads and members of the Staff. The discussion of these questions kept the audience interested until a late hour.

Digitized by Google

Western Section

Buffalo

ONE hundred and twenty-five members of the society and twenty-five women employees of the Revenue Accounting Department attended the Buffalo meeting of the Western Section of the Telephone Society of New York held in the new Telephone Building on Dec. 19.

The meeting was called to order by Chairman C. A. Spaulding. The Secretary read his report combined with that of the Membership Committee, showing a total membership, including 38 elected at this meeting, of 435. The report of the Finance Committee showed the Section to be in very good financial condition. A vote was taken to amend Article No. 1 in the By-laws, allowing the enlargement of the Executive Committee to 6 members, thus taking in one representative from the Western Electric, Western Union and Connecting Companies. It was voted to draw up a resolution extending the Western Section's thanks for the Pension Fund. The Secretary then read the report of the Nominating Committee and the following were unanimously elected: Chairman, J. L. Parker, New York Telephone Co.; Vice-chairman, V. V. Mott, New York Telephone Co.; Sec. and Treas., Harrison Stewart, New York Telephone Co.; Executive Committee, C. A. Spaulding, W. J. O'Hea, A. L. Griswold, New York Telephone Co.; L. F. Philo, Western Electric Co.; J. A. Pferd, Western Union Telegraph Co.; S. C. Crandall, Westfield Telephone Co.

Chairman Parker then introduced Mr. E. C. Michell, Division Auditor of Receipts, Metropolitan Division, who read a paper on "The Revenue Accounting Department, Metropolitan Division: Something of Its Work and Relation to Other Departments." The paper was followed by remarks by Miss Smith of the Revenue Supervisor's office and Messrs. Roberts, Parker, Deas, O'Hea, Ramsdell and Vines.

Rochester

THE Rochester meeting was held in the banquet hall of the Hotel Rochester on Thursday evening, December 5, with 48 members present and was called to order by Chairman C. A. Spaulding.

In the regular order of business, the minutes of the last regular meeting of the Telephone Society, Western Section, held in Buffalo November 21, were read. Mr. Spaulding then read the paper prepared by Mr. J. A. Stewart, General Manager, entitled "A Short Review of the Progress Made by the New York Telephone Company since 1892." Various points of the paper were taken up by Messrs. O'Hea, Baxter, Benedict, Nobles, Menneiley and Culliton, and the Chairman. From a local point of view, interest was added by the remarks of several of the older men of the Company relating the trials, tribulations and progress made by the Company in Rochester and vicinity.

A committee was appointed to draw up a resolution wishing Mr. W. G. Barry, former District Manager at Rochester and member of the Society, good luck in his new position in St. Louis.

An "Athletic" Dinner

ON Saturday evening, December 7, the New York Telephone Athletic Club held its annual dinner at the Broadway-Central Hotel, New York City. Over one hundred attended and demonstrated to the proprietors by the amount of food consumed that the high cost of living had no terrors for telephone employees.

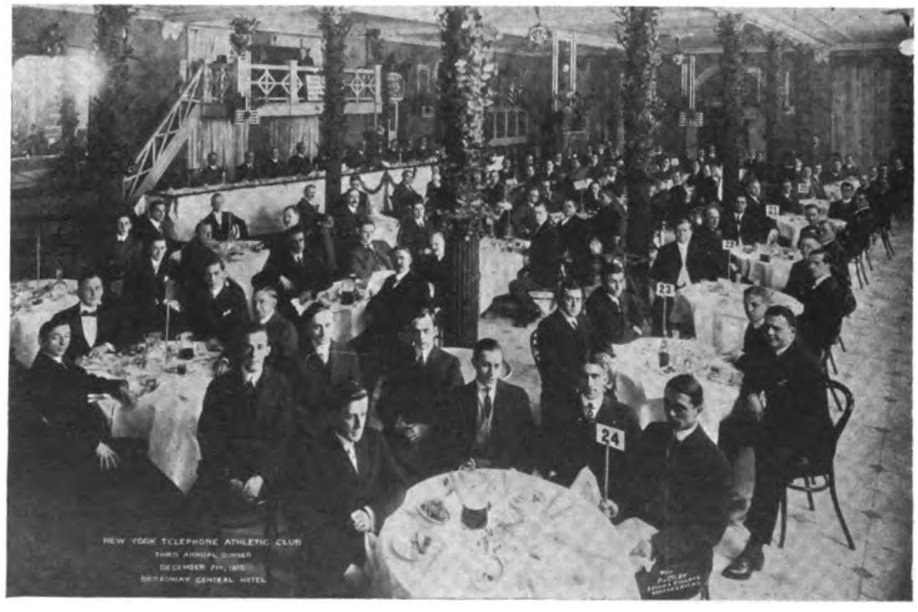
Athletic appetites, vocal "artists" and speakers who performed on and off the subject of athletics were much in evidence. A very interesting program was arranged by the Club's Entertainment Committee, headed by Mr. P. Knego, who secured as speakers, Mr. J. S. Wiley, Mr. H. F. Thurber, Mr. J. S. McCulloh and Mr. J. D. Newman. Mr. Coogan and Mr. P. Tapley rendered vocal selections, while Mr. J. E. Byrne, President of the Club, acting as Toastmaster, announced the events in their sequence.

The guests of the evening were Mr. F. H. Bethell, Mr. Walter Brown, Mr. J. A. Stewart, Mr. E. F. Sherwood, Mr. G. C. Allen, Mr. J. A. Kennedy, Mr. A. W. Allen, Mr. B. Foraker, Mr. I. J. Thorp, Mr. P. D. Honeyman.

There seems to have been no sustained movement towards athletics until December 14, 1910, when the Plant Accounting Social and Athletic Club (as the New York Telephone Athletic Club was first called) was organized.

Frequent notices in *The* TELEPHONE REVIEW since that time have described the activities of this organization, and it is now desired to broaden its interests to cover, if possible, the entire territory. There is no reason why its membership should not include employees wherever they may be located, who are qualified in any form of athletics or sports.

Bowling, billiards, pool, baseball, football, hammer-throwing, high jumping, running, tennis, golf, swimming, skating,—all these and more have their devotees. If the New York Telephone Athletic Club can be the means of bringing them into one organization and perhaps entering its best men in competitive meets among themselves and with other athletic clubs, we have no doubt great results will follow.



DINNER OF THE N. Y. TELEPHONE ATHLETIC CLUB, DECEMBER 7, 1912.

Digitized by Google

S. M. GREER.

W. F. BAKER.

H. G. KERR.

Samuel M. Greer

THE appointment of Samuel M. Greer as General Commercial Superintendent of the Chesapeake & Potomac Telephone Co. has taken from the New York Telephone Co. one of its most forceful and interesting figures.

During the twenty-three years that he has been identified with this organization, he has not failed to leave the impress of his personality upon every position that he has occupied, from that of junior clerk to Metropolitan Manager.

Mr. Greer began his career with the New York and New Jersey Telephone Co. in Brooklyn in 1890. He was transferred to the Metropolitan Telephone and Telegraph Co. in New York in 1893 and occupied various positions in the Contract Department until his appointment as Chief Clerk in the office of Mr. U. N. Bethell.

In 1908 he left this position to become Division Commercial Manager, Long Island, and in 1909 he was transferred to New Jersey as its Division Commercial Manager.

When the New York Telephone Co. acquired the new up-state territories in 1910-11, Mr. Greer was made assistant General Commercial Manager to assist in the reorganization work and had charge of the Hudson and Central Divisions.

His appointment as Metropolitan Manager followed in July, 1911.

Mr. Greer is a Telephone Pioneer.

W. F. Baker

W. F. BAKER has risen to the position of Metropolitan Manager through all the grades of the Commercial Department.

Mr. Baker came to the Company as an agent in the Contract Department in October, 1897. He was appointed a special agent in charge of the 38th Street Contract office November 3, 1902, and on April 1, 1904, succeeded Mr. F. H. Bethell as Contract Agent.

On April 1, 1908, he was appointed Division Contract Agent of Manhattan, the Bronx and Westchester, his title being changed to Division Commercial Manager April 1, 1910, when the name of the Contract Department was changed to Commercial Department.

Mr. Baker was appointed Division Commercial Manager, New Jersey Division, on May 1, 1910.

Mr. Baker's personal experience, therefore, as subordinate and executive, the latter covering two such different territories, has fitted him to take up this bigger work.

The territory under his jurisdiction is the most highly developed, telephonically, in the world and is the most diverse. It embraces everything known in the way of telephone service from the financial, commercial, residential and apartment house districts of congested Manhattan, to the suburban and rural communities and summer resorts in Westchester, Long Island and New Jersey.

H. G. Kerr

AFTER a little more than two years and a half, Mr. Kerr returns to the New Jersey Division to become its Commercial Manager.

Prior to May, 1910, he had been located in the New Jersey territory, with the exception of a short period, since January, 1899.

Mr. Kerr first entered the telephone business in November, 1893, as a bookkeeper in the Montreal Local Office of the Bell Telephone Co. of Canada. This position he resigned in 1898 to accept the secretaryship of a telephone company in Vancouver, B. C.

A year later he came east and became a salesman in Jersey City for the New York and New Jersey Telephone Co., afterwards being located at Plainfield. A short interval was spent in construction work with the American Telephone and Telegraph Co.

In November, 1900, Mr. Kerr was made Special Agent with headquarters at Elizabeth. In May, 1901, he was transferred in the same capacity to Jersey City, and a little later was put in charge of all the commercial development work throughout the New Jersey Division.

His appointment as District Agent of the Central District followed in November, 1905, and this position he held until his promotion in May, 1910, to Division Commercial Manager of the Westchester Division.

Digitized by Google

W. A. BENTLEY.

W. A. Bentley

THE new Commercial Manager of the Westchester Division has had an experience in the telephone business which makes him exceptionally well qualified for his new position.

Mr. Bentley entered the service of the Company, August 1, 1902, as assistant to the General Superintendent, and continued as assistant to Mr. Thurber in his various official capacities until July 1, 1911, except that from April 1 to July 1, 1910, he served as Real Estate Manager.

Upon his return on April 1, 1912, after an extended furlough, Mr. Bentley was placed on the staff of the General Commercial Superintendent.

The nature of his duties as assistant to Mr. Thurber during those nine years, gave Mr. Bentley an intimate knowledge of the problems and policies of the Company as they affect all departments, and the special training which came through his assignment to the General Commercial Superintendent led the way directly to his appointment to the important position which he now holds.

Westward Ho!

The Migration From the New York Telephone Co. Continues

Marshall B. Downing has resigned as Manager of the Newark District, New Jersey Division, to accept the position of Superintendent of Traffic of the Bell Telephone Company of Missouri, with headquarters in St. Louis.

Mr. Downing's telephone experience has been confined to the Traffic Department of the New York Telephone Company, but it has been varied and extensive. He entered the business November 27, 1899, as a Service Inspector in the Metropolitan Division. On September 3, 1900, he was made Assistant Manager of Madison Square, and in June of the following year he was appointed Manager of Franklin. His duties were subsequently enlarged by the exchange districts of Orchard, Spring and Worth being added to his territory. When the reorganization of the up-state divisions was in progress, Mr. Downing was assigned to that work in the Hudson and Western Divisions, and this occupied his attention from November, 1909, to September, 1910. He was then sent to the New Jersey Division and represented the Division Superintendent of Traffic during the absences of Mr. Lynch, later becoming Acting Manager of the Newark District. He was appointed Manager of the Newark District on April 1, 1912.

E. D. Anderson, Sales Manager Directory Advertising, has resigned to accept the position of Advertising Manager of the Bell Telephone Company of Missouri. Mr. Anderson has been identified with the Advertising Department of the New York Telephone Company for several years.

F. O. Ludlow has resigned as Local Agent, Newark, N. J., to accept a position as Division Commercial Manager of the Bell Telephone Company of Missouri. Mr. Ludlow became Local Agent, Newark, January, 1911, having previously been Local Agent at Summit.

W. Hinchcliffe has resigned as Local Agent, Peekskill, in the Westchester Division, to become a Division Commercial Manager of the Bell Telephone Company of Missouri. Mr. Hinchcliffe has been Local Agent at Peekskill since 1910, having been transferred from Ossining, retaining charge of the Ossining office. His connection with the New York Telephone Company dates back to 1900.

Mr. Anderson, Mr. Ludlow and Mr. Hinchcliffe will each report to Mr. W. G. Barry, General Commercial Superintendent.

Organization Changes

GENERAL.

Commercial Department

S. M. Greer, Metropolitan Manager, resigned to accept position of General Commercial Superintendent, the Chesapeake & Potomac Telephone Company. Headquarters, Baltimore, Md.

W. F. Baker appointed Metropolitan Manager. Headquarters, 15 Dey Street.

H. G. Kerr appointed Division Commercial Manager, New Jersey Division. Headquarters, Newark, N. J.

W. A. Bentley appointed Division Commercial Manager, Westchester Division. Headquarters, Mount Vernon, N. Y.

E. C. Moore, who now reports to the General Commercial Superintendent, will report to A. D. Welch, General Commercial Engineer. Mr. Moore will continue to handle matters involving studies of commercial methods, routines, accounting and relations with the Western Union Telegraph Company. Employees now reporting to Mr. Moore will continue to so report.

Plant Department

F. H. Gilchrist resigned his position as Real Estate Manager, and reports direct to the General Superintendent of Plant on special assignments.

J. C. Rennard appointed Real Estate Manager, reporting to the Superintendent of Buildings and Supplies.

METROPOLITAN.

Advertising Department

E. D. Anderson, Sales Manager Directory Advertising, resigned to accept position as Advertising Manager, Bell Telephone Co. of Missouri.

P. W. Eldridge, Jr., appointed Sales Manager Directory Advertising.

NEW JERSEY DIVISION.

Commercial Department

F. O. Ludlow, Local Agent, Newark, resigned to accept a position as Division Commercial Manager, Bell Telephone Co. of Missouri.

L. C. Hall, District Agent, will act as Local Agent in Newark. Local Agents in Orange, Montclair, Morristown and Jersey City will continue to report to him.

E. H. Dyer, Special Agent, transferred to the office of the General Commercial Engineer.

W. M. Graham appointed Special Agent, reporting to the Division Commercial Manager, and will assume the present duties of Mr. Dyer.

P. H. Burns, Local Agent, Plainfield, transferred to the Attorney's office, New York City.

A. B. Wilson, Local Agent, Red Bank, to succeed Mr. Burns as Local Agent at Plainfield.

W. H. Hall, Local Agent, Long Branch, will also act as Local Agent at Red Bank with headquarters at Long Branch.

Traffic Department

M. B. Downing, Manager Newark District, resigned to accept the position of General Superintendent of Traffic, Bell Telephone Co. of Missouri, with headquarters at St. Louis.

Plant Department

George E. Davis, formerly Troubleman at Perth Amboy, Elizabeth Sub-district, appointed Acting Foreman in the Elizabeth Sub-district.

George E. Little, formerly Troubleman at Elizabeth in Elizabeth Sub-district, appointed Acting Foreman in the Elizabeth Sub-district.

Edward T. Lynch, formerly Chief Clerk, Plainfield Sub-district, transferred as Chief

Digitized by Google

Clerk to the Jersey City District.

John Jager re-engaged as Subway Foreman, Construction Department.

WESTCHESTER DIVISION.

Commercial Department

W. Hinchcliffe, Local Agent Peekskill, resigned to accept a position with the Bell Telephone Co. of Missouri.

F. R. Guy, Agent-in-Charge Ossining, appointed Local Agent Peekskill, to succeed Mr. Hinchcliffe.

J. M. Reynolds appointed to succeed Mr. Guy as Agent-in-Charge, Ossining, reporting to Mr. Guy at Peekskill.

Traffic Department

D. deW. Miller appointed Division Traffic Engineer with headquarters at Mt. Vernon.

CENTRAL DIVISION.

Traffic Department

Miss Lillian Ehrman appointed Evening Chief Operator at Herkimer, N. Y.

Miss Mary Wood appointed Chief Operator at Jordan, N. Y.

CENTRAL DIVISION

Plant Department

J. B. Cherry, appointed General Foreman, in charge of Construction in the Elmira District.

I. D. Simpson, appointed General Foreman, in charge of Maintenance in the Elmira District.

H. L. Mead, Insideman, Syracuse, has been appointed Wire Chief at Watertown, vice L. C. Howell, resigned.

WESTERN DIVISION.

Traffic Department

F. E. Martin appointed Chief Clerk.

Pension Fund Now Operative

ON January 1, 1913, the plan under which a fund of $10,000,000 is now available for Pensions, Sick Benefits and Life Insurance for the 175,000 employees of the Bell System and Associated interests and their families and dependents, went into effect.

Circulars explaining the features of the plan and cards to be filled out with records of time of service, salaries, names of beneficiaries and other details have been sent to all employees.

The Pension Fund Committee for the New York Telephone Company and its Associated Companies consists of Messrs. F. H. Bethell, H. F. Thurber, Ford Huntington, J. S. Wiley and J. L. Swayze. Mr. T. P. Sylvan is Secretary to the Committee.

At the meeting of the Committee held on January 7th the payment of the first death benefit was authorized. Mrs. Charlotte Marcus was the beneficiary, on account of the death of her late husband, Frederick J. Marcus, which occurred on January 1.

To Miss Julia M. Bennet, residing at Larchmont, New York, and reporting to Mr. R. T. Wilson, Secretary to the Vice-President, belongs the distinction of being the first employee to be awarded benefits under the new plan on account of sickness disability.

One Blast and What Followed

How Traffic Maintained Service by Re-Routing

ON December 5, at 1:19 P. M., the chief operator of the Westchester Toll Board called the Manager of New Rochelle and reported that it was impossible to raise Greenwich, Mamaroneck, Port Chester and Rye over the ring down or tandem trunks.

At 1:20 P. M. the chief operator of Mamaroneck called the New Rochelle Manager and reported that a blast which had been set off by workmen on the Boston Post Road had undermined the cable conduit and had broken the toll cable in two; that all of her Westchester Toll Board, New Rochelle, Mount Vernon, Larchmont and the tie trunks to the New Rochelle Information Desk were "open." Instructions were immediately issued to Mamaroneck to route calls to tandem points over the ringdown trunks to White Plains where they would be passed over the tandem trunks to the Westchester Toll Board.

The broken toll cable also put all the tandem trunks between the Westchester Toll Board and Port Chester and Greenwich out of order as well as the ringdown trunks to Rye. Greenwich and Port Chester were instructed to route their tandem calls over ringdown trunks to New Rochelle and Mount Vernon where they were passed over the tandem trunks to Westchester Toll Board. Rye had to send her calls to Port Chester and Greenwich over ringdown trunks whence they were routed to Mount Vernon, New Rochelle or White Plains according to the available ringdown trunks, and then sent over the tandem trunks. Owing to the high standard of efficiency maintained on the inter-Westchester Division trunks no transmission difficulties were experienced over the circuits built up in this way.

This was taking care of all outgoing business, but was not caring for any incoming calls from the Westchester Toll Board. It was not easy to arrange to handle incoming calls as most of the "B" boards were located too far from the ringdown trunk jacks to make it possible to switch calls from circuit to ringdown trunks. The Manager of White Plains was consulted. He arranged with the Westchester Toll Board chief operator to have all calls from Greenwich, Port Chester, Rye and Mamaroneck routed via the White Plains tandem trunks then over ringdown trunks to the office desired. In case White Plains should be unable to handle all the traffic, overflow calls were to be routed via ringdown trunks to Scarsdale, Pleasantville or Briarcliff and then over county ringdown trunks to the offices affected.

This cable break affected a total of 109 trunks of which 88 were tandem and circuit ones. The Plant Department and underground cable men were rushed to the cable break in automobiles. The debris was cleared away and all but five trunks were in working order by 7:30 P. M. of the same day.

O. G. MACKNIGHT,
Manager of New Rochelle.

(Another instance of the value of "One System."—Editor.)

Bowling

Metropolitan

THE Metropolitan Division Bowling League is having a most successful season, and its members seem determined to make the pin boys earn their pay. Whether dealing with figures improves bowling skill we are not prepared to state, but the Plant Accounting team holds the lead as we go to press. The men of figures are closely pursued by the Manhattan Commercial aggregation which holds high average of 859.4. High score of 946 is claimed by the Engineering boys. Grady of the Plant Accounting is still waiting for some ambitious bowler to better that high individual score of 253, while Reynolds of the Manhattan Commercial points complacently to the high average of 182.11.

Buffalo

The much enduring bowling pins are also being handled roughly by the unerring aim of the members of the Buffalo Bowling League comprised of teams representing the eight departments in that city. The season consists of twenty-eight evenings on the alleys and closes with a theatre party and banquet where prizes are awarded and many of the Division officials entertained.

Rolls are held every Friday evening. On December 26, the standing showed the Equipment team in the lead closely pressed by the Commercial boys. The league leaders also hold high score of 924, but the Engineers hold high total of 2,657. Carrit of the Engineers has high individual average of 183 and high individual score of 243.

Digitized by Google

The Transmitter

Suggested by F. C. Kurz, Bronx Commercial

IN suggesting the above title for this page, Mr. F. C. Kurz, of the Bronx Commercial office, asks: "Has your short item department ever been called 'The Transmitter?' That is the end of the line we hear from."

The TELEPHONE REVIEW wants to hear from all the "lines" in this Company. Suggestions are still in order for a caption for this page every month. Let us have yours.

> "When friendly looks cannot be seen, tactful words become more than ever a necessity."—(Miss) Alice L. Tracy, Supervisor, Saratoga Springs.

Useful to All

The Isaac H. Blanchard Co., Printers and Lithographers in New York, are issuing an advertisement which not only gives them valuable publicity, but is very useful to all telephone subscribers.

It consists of a telephone message blank which is headed "Telephone Message (Make a note of it). A Telephone Message is just as important as a written one."

Below the date line it reads: "Mr. ....., While you were out, Mr. .....called up at .....M. He said ..... His number is ..... Signed....."

Selling by Wire

The new methods of salesmanship which progressive business men are using at the present time, especially in selling by telegraph and telephone, were well illustrated recently by F. R. & P. M. Pierson, located at Scarborough, N. Y., and Briarcliff Manor, N. Y. This firm has an immense plant with greenhouses at each place and is probably the largest grower of American beauty roses in the United States.

On Thursday morning, December 19, the firm sent telegrams to eighteen customers, florists in the larger cities between Boston and Chicago, advising them to place their orders early for American beauty roses. As we all know, one of the best ways to bring a hesitating customer to a quick decision is to impress him with the thought that perhaps the supply may run out.

As a result of sending these telegrams eight orders were secured, one being received from Boston by long distance telephone at 11 A. M., the same day, and another in the afternoon by telegraph from Chicago.

In no other way could these customers, distributed over such a large area, have been reached so quickly, nor is it likely that any other method of soliciting the orders would have gone so straight to the point and have received such prompt attention.—F. R. Guy, Agent-in-Charge, Ossining, N. Y.

Somewhat Indefinite

The other day, a call was received at our Albany information desk from a subscriber who said that he wished to talk with a young lady whose name he did not know. The young lady's sister, he said, was married to Mr. Flower, the coal dealer. We have not been able to complete the connection as yet.

Didn't Know "Busy Test"

Recently a Glens Falls subscriber called for a Hudson Falls number. It appears that he had occasion to call that number frequently and was often given a busy report. On this particular evening after making several attempts and still being given "busy" he remarked in a most doubtful tone, "Say, Central, it's very funny every time I call that number you say it's busy and yet I can hear their clock ticking." He hung up his receiver before an explanation could be given him.—Submitted by our Glens Falls Chief Operator.

How One Installer Took Advantage of His Opportunities

An interesting story has come to light in connection with the transfer of Mr. W. F. Opdyke of Jamestown from the Plant to the Commercial Department.

Mr. Opdyke was formerly an installer in the Plant Department and the transfer was directly due to his live interest in the efforts and work of the Commercial Department and his activities in securing prospects for telephone service for the Commercial Department. A remarkable interest has been developed in the Western Division among the Plant Department employees with the idea of obtaining the names of people who might be interested in telephone service and records are kept from month to month showing the activities of the various employees, etc., who turn in the names of such prospective subscribers. It was noted that Mr. Opdyke was taking a live interest in this proposition and the result was that the Commercial Department in Jamestown, through the District Manager, finally asked the Plant Department if Mr. Opdyke might be transferred to them. This was done and he is now engaged in the Commercial work in Jamestown.

Perhaps no better example can be found of how one man in looking ahead and doing just a little more than his job required and being just a little bigger than his immediate work, has broadened his horizon and increased his opportunities.

Wanted to Reach Everybody

The Mt. Morris Office recently received the following request for advertising which, although denied, showed nevertheless that all kinds of business men know the quickest and surest way to reach the public.

The manager of a small theatrical troupe, whose chief attraction was "The Devil," came into the office and said to one of the clerks, "I want you to have your operators call up every subscriber on your list and tell them that 'The Devil' will be at the Casino tonight, and for them to be sure to come." The clerk replied that the manager was out of town, but that it was unlikely anything of that kind would be allowed. The man replied in a very decided tone that it would be allowed all right as they did it everywhere, and that he "fixed the girls up with tickets to pay them for their trouble."

His request to see the Chief Operator was of course denied, but he would not be repulsed until she told him over the telephone that his request would not be granted.—Lillian E. March, Morse Operator, Mt. Morris, N. Y.

The Modern Way

The president of the Paterson, N. J., Board of Trade has also discovered how to get a large attendance at meetings. Instead of sending the members postcards and letters, he calls them by telephone and has even employed an extra clerk for this purpose. The attendance at the first meeting after the adoption of the new plan was exceptionally large.

Digitized by Google

"S" Stands for Service

During the holiday rush at Rochester, the Chamber of Commerce waged a very active campaign for the prevention of accidents, placing for several days on the front of all cars a large red letter "S," which caused much curiosity as to its exact meaning.

Miss E. A. Logan, Chief Operator of the Chase Central Office, Rochester, seized the opportunity and at the psychological moment when speculation as to the real answer had reached its height, displayed in the operators' retiring room a large red letter "S" followed by the explanation, "'S' stands for Service, Speedy and Satisfactory. See that our subscribers get it!"

The final announcement of the Chamber of Commerce in the shape of a bulletin, "Safety first—Avoid accident," could not erase the impression already made on the minds of the Chase Operators, who are still putting the "S" in Service.—H. W. BENEDICT, District Traffic Chief.

Very Thoughtful

A Branch Brook operator answering a call was requested to take down two numbers—1901-E and 699. She was a little surprised and with all the embellishments of which the rising inflection is capable, she repeated the number in a very questioning tone. In answer to the query in the operator's voice, the subscriber replied, "Oh, I don't want you to get those numbers for me. I only thought you should make a note of them because a short time ago two pigeons flew into my place and attached to their legs were metal rings bearing the numbers 1901-E and 699. It occurred to me that the owner might be looking for them and might call you to see if you had heard regarding them."—R. D. DONALDSON, Ass't. Mgr., Newark District.

Blue Bell Glee Club

The Blue Bell Glee Club, which has proven itself such a marked success, desires to grow, and Mr. E. W. Wollmuth, Secretary, No. 444 Tompkins Avenue, Tompkinsville, Staten Island, would be glad to receive applications for membership. The Club wishes it to be understood clearly that not only male employees of the New York Telephone Company, but also those of the American Telephone and Telegraph Company, Western Union Telegraph Company and Western Electric Company are eligible for membership.

"Southern Telephone News"

THE interesting announcement has been received that the *Cumberland Telephone Journal* will be continued under the name *Southern Telephone News* as a publication for both the Southern Bell Telephone and Telegraph Company and the Cumberland Telephone and Telegraph Company, and that it will be under the supervision of Mr. Evelyn Harris, Publicity Manager of the Southern Bell Telephone and Telegraph Company at Atlanta.

"The Transmitter"

The first number of *The Transmitter*, published by the C. & P. Telephone Co., Baltimore, and bearing date of January 1, 1913, duly reached us. In size and several other respects it resembles *The* TELEPHONE REVIEW, although it is designed to be more of a newspaper than a magazine in character. It will appear semi-monthly.

We congratulate Mr. Boisseau, the Publicity Manager, under whose supervision it is issued, and Mr. Cook, the Editor, upon the instantaneous success they have made.

Harlem Commercial Reunion

THE Harlem Commercial Division of the New York Telephone Company celebrated its twelfth year on Saturday evening, December 7, at the Harlem Casino Hotel. About eighty members, staff and alumni, were present.

Since the opening of the Harlem Office in 1900, the District north of 110th St., has grown from 1,553 stations to more than 62,000.

Newark Plant Dinner and Theatre Party

One hundred and three Plant men of the Newark District and invited guests from other districts attended a dinner at the Holland House, Newark, December 17, and followed it with a theatre party. The success of a previous affair on April 23 was the inspiration.

They are to be congratulated upon the splendid spirit which was displayed, for although they were upon pleasure bent and enjoyed every minute, the most noticeable feature of the occasion was the comradeship among the men.

The next event is eagerly anticipated and no doubt will attract even a larger number.

Revolution and Evolution

What strange vagaries does Father Time play and for what odd developments is he not responsible?

At Cornwallis's Headquarters, Alpine Landing, Alpine, N. J., located at the foot of the Palisades Bluff, a sheer drop of 400 feet from the Boulevard, the Company has arranged, at the request of the Commissioners of the Palisades Interstate Park, to provide telephone service.

CORNWALLIS' HEADQUARTERS.

Extensive alterations are being carried out at the Alpine Dock, and when these have been completed it is the intention to accommodate the model of Robert Fulton's first steamboat, "The Clermont," built for the Hudson-Fulton celebration, and also "The Half Moon," the replica of the old vessel of that name which made the first known trip by white men up the Hudson.

What an interesting and thought-stimulating juxtaposition — "The Half Moon," "The Clermont," Cornwallis's Headquarters, and the thirty-six-year-old Telephone.

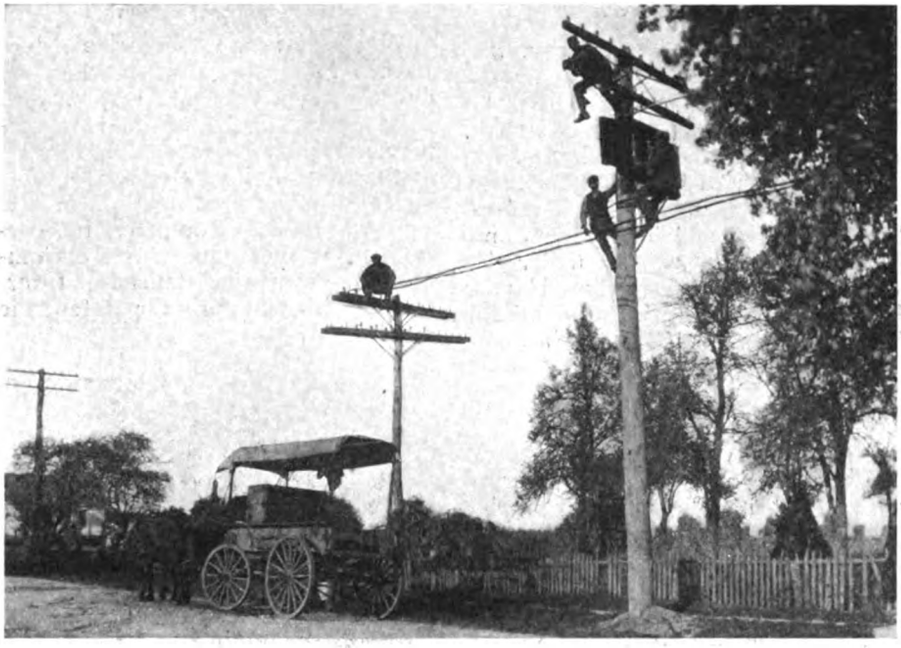
Wise and kindly Father Hudson must at times indulge in many reminiscent reveries.—H. BELL, Local Agent, Englewood, N. J.

"Had a Mad On"

A contributor to *The* TELEPHONE REVIEW who visits many local offices tells us the following, which, although simple in itself, is a good illustration of what courtesy does for company, employee and public.

Recently he called on a counter agent in one of our down-state offices

Digitized by Google



CONSTRUCTING AN AERIAL LINE IN RURAL DISTRICTS—NEAR SHILOH, N. J.

Extending the System

The accompanying photographs have been contributed by Miss Cora June Sheppard of Shiloh, N. J.

The work of the linemen is varied and full of interest, and these pictures, which were not posed but were taken unaware, show that the men thoroughly enjoy their job, as may be seen from the attitude of several of them.

and was conversing with him when a man rushed in armed with a large book which he deposited on the counter with a bang evidently as an opening argument. He then proceeded to relieve himself of a few utterances regarding what he claimed was an overcharge on his bill.

Our counter agent said nothing until the subscriber had finished speaking. Then he smiled pleasantly, took the bill, asked the man to be seated, and proceeded to investigate the matter. It was but a few moments before he informed the subscriber that his complaint was a just one and the bill would be promptly adjusted.

By this time the subscriber had cooled off considerably. For a moment he seemed at a loss what to say, then asked the agent to take care of his book for a minute. Going out, he reappeared shortly with a couple of cigars which he handed to the agent with a smile.

The writer and the agent smoked the cigars and agreed that courtesy was a paying proposition for all concerned.

a ticketa Harlem River. No be a fraida I giva youa the money all righta."

The operator tried to explain further that she could not sell nor deliver tickets by telephone. At this point the train came in and pulled out again leaving the Italian in the station. He then began to talk very loud and fast in his native tongue, evidently saying something which he was unable to express adequately in English. After delivering his lecture, he replaced the receiver on the hook.—EDWIN D. CHARD, Assistant Mgr., New Rochelle.

A "Phoney" Dream

LAST night I had an awful dream,
I dreamt I had no 'phone;
And much to my dismay I thought
I couldn't even get one.

The clerk to whom I did apply
Said in a pleasant mood:
"We have no facilities just now
Right in your neighborhood".

HOW THE FARMERS GET THE TELEPHONE—SCENE NEAR SHILOH, N. J.

Railroad Tickets by Telephone

At one of the small stations on the Harlem River Branch of the N. Y., N. H. & H. R. R., where the business does not warrant a ticket agent after certain hours of the night, the following request was made by an Italian from a coin box: "Say, central, tha ticketa office a closed, no ticketa agent a here. I puta tha money in a tha box, youa giva to me a ticketa to Harlem River?"

When the operator explained that she did not sell tickets and would return his money he replied, "A what's tha matter with you, youa fraida to taka tha chanca to sella me

I was just about to say "I'll move
To another location",
When suddenly a tinkling sound
Cut short the conversation.

I awakened somewhat startled
And sat right up in bed;
"'Tis that old alarm next door," I thought,
'Twould almost wake the dead.

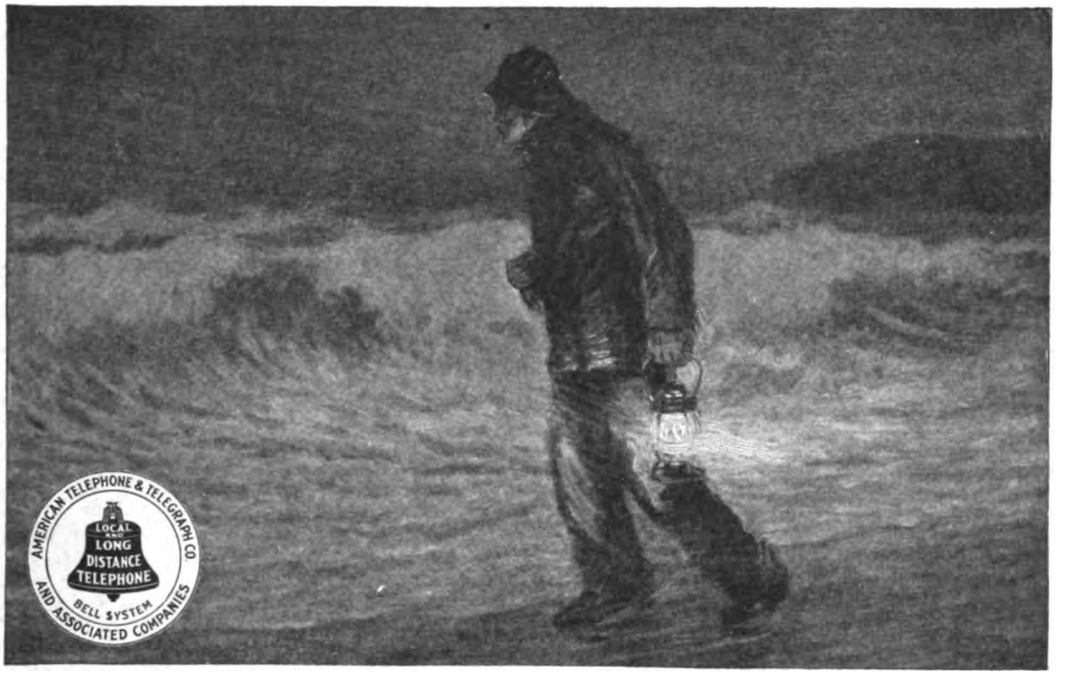
The bell continued ringing,
I began to rub my eyes,
And sure enough I saw a 'phone,
Much to my surprise.

'Twas then I knew I had a dream,
I'm glad it isn't true;
For a home without a 'phone is like
A ship without its crew.

We could do without an auto,
An airship or a yacht;
But to be without a telephone
Is one unhappy lot.

HELEN M. CONWAY,
Plant Dept., Jersey City.

Digitized by Google



Always on Guard

No matter where a ship may be along the American coast; no matter how dark, or cold, or stormy the night, the coast guard is on watch, patrolling the nearest beach or rocky cliffs.

This man, always on guard, could, by his own unsupported efforts, do little to save life, or to guide ships away from perilous points.

As a unit in an efficient system and able, at a moment's notice, to command the service of his nearby station, he becomes a power to whom all ship owners and passengers are indebted.

In the same way, the Bell Telephone in your home and office is always on guard.

By itself, it is only an ingenious instrument; but as a vital unit in the Bell System, which links together seven million other telephones in all parts of this country, that single telephone instrument becomes a power to help you at any moment of any hour, day or night.

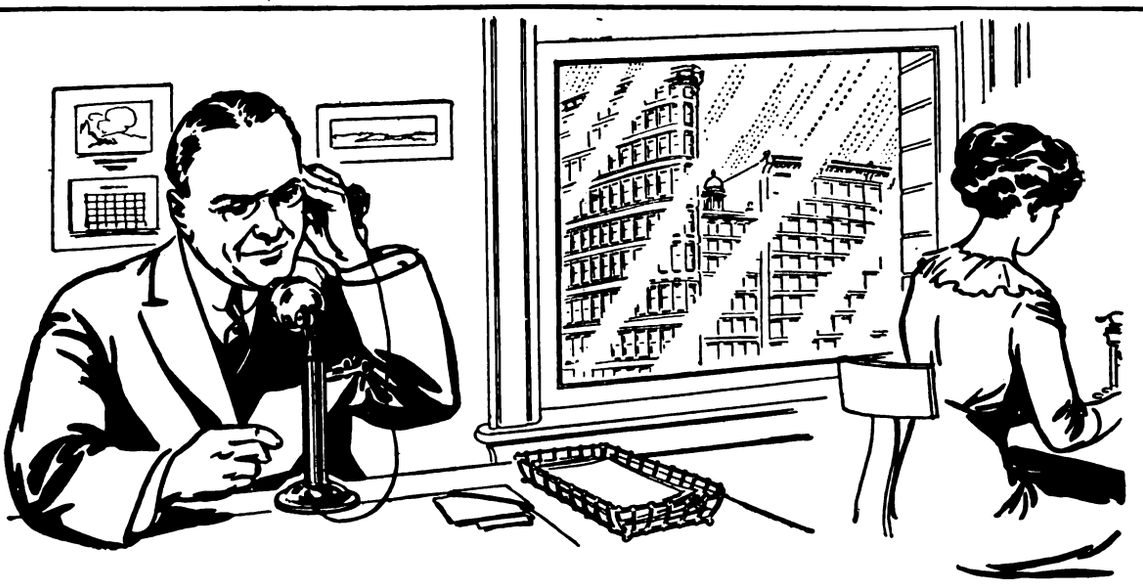
It costs unwearying effort and millions of dollars to keep the Bell System always on guard, but this is the only kind of service that can adequately take care of the social and commercial needs of all the people of a Nation.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

Every Bell Telephone is the Center of the System.

Digitized by Google



"Yes; you may ship tomorrow, Mr. Smith. We often close orders by telephone."

Talks Without Trips—By Telephone

IN PLACING orders, closing sales, making appointments, requesting information—in fact, in taking up any matter with a busy man—telephone talks save tiresome trips away from your place of business.

Every business man is more at home in his own office, where he has all needed information close at hand, than he is in another man's office. By using the telephone, both parties in the business talk may remain at their desks and one, at least, has saved the time and effort of making an unnecessary trip.

Telephone Talks **are personal, direct and businesslike. Their increasing use by up-to-date business men is due to the value of the telephone as a time, effort, and money saver.**

Let your telephone save you every unnecessary trip.

NEW YORK TELEPHONE COMPANY

Digitized by Google

J. M. Buchanan 12

Vol. 4 No. 2 February · 1913

THE TELEPHONE REVIEW

Digitized by Google

"Economical Traveling" —By Telephone

WHY take a tiresome journey to some distant town or city when you may use the Long Distance Telephone and obtain the same results?

Business matters that require immediate and decisive action may be transacted quickly and without interruption or loss of time, by Long Distance Telephone.

For out of town rates consult the Telephone Directory.

Every Bell Telephone is a Long Distance Telephone

NEW YORK TELEPHONE CO.

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV | NEW YORK, FEBRUARY, 1913. | NUMBER 2

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treas.
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, Attorney
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor of Receipts
J A. KENNEDY, Auditor

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor.

VOL. IV. FEBRUARY, 1913, No 2

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.

Remittances should be made by check, draft or money order, payable to the New York Telephone Co.

Reproductions of any of our cover designs, for framing, will be sent to any address upon receipt of a 2-cent stamp each.

One Swallow Does Not Make a Summer

THE ringing of his telephone bell called the attention of an employee of this Company from an important piece of work in which he was engaged, and with the promptness which the summons always produces, he lifted the receiver and said: "Mr. So-and-so speaking." A gentle voice at the other end of the wire murmured: "Is this Mr. So-and-so?" He answered politely, "Yes, this is Mr. So-and-so. What can I do for you?" The reply was "Wait a minute."

He waited several minutes. In the meantime, his mind was not only diverted from the subject to which he had been giving his consideration, but he was beginning to feel a little exasperated that he should be kept waiting, and so he jaggled the receiver hook up and down and asked Central who wanted him. Central replied: "A party wants you," and a little later the first voice which softly spoke to him again came on the wire and said: "Is this Mr. So-and-so?" to which he sharply retorted: "Yes, who is it, who is it?" The dulcet tones replied: "Wait a minute."

This was getting unendurable, when from the other end a man's voice, which he instantly recognized as that of an employee in another department, asked: "Is this you, So-and-so?"

Again he admitted the soft impeachment, but not very graciously, and then he lit into the other man and asked him why in the name of all that stands for courtesy and co-operation did he not wait until he was ready to talk and then get on the wire himself. This led to a sharp rejoinder, and the result was a scrap over the wire instead of the business conversation, which was the purpose of the call.

This involved the use of the wire for several minutes, the assistance of a clerk in the office of the calling party and the services of two telephone operators, and other consequences, all through a piece of carelessness and indifference by the party of the first part towards one of the cardinal principles of the telephone, and one which the Company is not only inculcating in its employees, but advertising to the public.

One swallow does not make a summer, and we would fain believe that there is not another employee of the Telephone Company who would do such a thing.

Telephone in Denmark

THE article by Mr. Kristen Moller, General Superintendent of Traffic, Copenhagen and Sealand Telephone Company, which we print in this issue, is an interesting and valuable contribution to the sum total of telephone knowledge of the employees of this Company.

The differences in national characteristics account for many of the differences between Danish and American telephone methods.

Mr. Moller concedes in effect that it would be as impossible to conduct the business in America as it is conducted in Denmark, as it would be for them to adopt American methods entirely.

The points of difference, therefore, which he presents, must be considered with relation to the conditions of which they are a part in each country.

We esteem ourselves fortunate to be permitted to present to our readers a contribution from so distinguished a foreign telephone expert as Mr. Moller.

Mutual Benefit Societies Dissolved

THE Pensions and Disability Benefit, and Insurance Plan for employees of the Bell System which went into effect on January 1, 1913, covers all the functions of the New York Telephone Co. Employees' Mutual Benefit Society of the Long Island and New Jersey Divisions and of the New York Telephone Co. Employees' Mutual Benefit Society operating in the other divisions of the New York Telephone Co.

Consequently, at meetings of the Societies held on January 23 and 25 respectively, the dissolution of each was authorized, the sale of its property was ordered, and its assets were directed to be distributed among its members.

By reason of the contributions of the New York Telephone Co., each of the Societies had accumulated a considerable surplus. Of this surplus, the Telephone Company was equitably entitled to one-half in the distribution.

The Telephone Company, however, waived all its rights, and thus the individual members of the two Societies will receive just double the amount which otherwise would have been withdrawn by them.

Cover Contest

IN ORDER to afford more time for making suggestions in our next cover contest, we have decided to extend the dates one month. In other words, the closing date for the receipt or suggestions is extended from January 25 to February 25; the suggestions will be printed in the March, instead of the February issue; the "polls" will be open to April 25th, instead of March 25th, and the cover will be used in June instead of May.

We hope that every employee who is interested will send us a suggestion for a cover.

Digitized by Google

Mr. U. N. Bethell's Address to the Pioneers

A SHORT address delivered by Mr. U. N. Bethell before the Telephone Pioneers of America, at their Convention in November, has been published in pamphlet form.

Its subject is "The Transmission of Intelligence by Electricity."

Copies may be obtained upon application to us.

A Letter From London

MR. F. G. TURNER, an Engineer of the General Post Office, Telephone Department, London, who recently visited America, studying the methods and practices of the Bell System, has written us an interesting letter embodying his impressions of our Company and its employees. Mr. Turner's letter follows.

THERE is one very distinct impression that the New York Telephone Co. made upon me. I may, perhaps, in time, forget the efficient organization of your Company. I may some day cease to wonder at the way in which the telephone is used in New York for any and every need of everybody. I shall probably forget all too soon many of the elaborate plant provisions and traffic arrangements which ensure to your city its telephone service; the details of the ultimate scheme of the engineers are already fading from my memory. But I think I shall never forget the spirit which seemed to animate the New York Telephone Co. "Love one another—and boost," said Mr. Thurber, stating at once the principle and practice of co-operation. I can only say that nothing impressed me so deeply as the way in which the spirit of co-operation seemed to possess you all. In my admiration of this spirit in which the work of the Company is done I do not value so much its financial gain to the Company, though surely that must be considerable. But as an employee in a similar undertaking, I think most of its value to the employees of the Company, and reflect what a pleasure it is to work with those on whose friendliness and good will you can always rely. And the spirit is so general. It overflowed and engulfed me so that I was never allowed to feel that I was any demand upon the time and patience of my hosts (though I must have often been so) or that they were not prepared to do anything to make my visit a pleasure and a profit to me. The Company sets the example in its behaviour as an employer, and right down the line the example seems to be followed. There may be exceptions, but I never seemed to meet them. The nearest approach to a man with a grievance that I met was one who told me that he was quite satisfied with his job, but that he thought his foreman was worth a bigger salary than the Company paid!

One of my clearest recollections is of a talk with a member of the Traffic Engineer's force. He had explained how a certain matter was dealt with by him, and then the necessary information sent to the Plant Department.

"But if there were not time for the usual routine to be followed; what would you do in an urgent case?" I asked. "Just telephone across and ask the chap in the Plant Department to get busy." "And if he objected that he couldn't do that without having the papers in the usual way?" "Oh, he wouldn't do that." "But *if* he *did?*" "Well, he *wouldn't*. You see, he knows I'm only asking him because the Company needs the work done at once, and of course he'd do it."

It will be long before I forget my difficulty in convincing that officer of the possible existence of any one in the Company's employ who would look at the matter in any other way.

There are other things I noticed—how soon a subscriber was given an exchange connection after he had signed a contract, how quick was the tandem trunk service to towns in the commutation zone. There are some things I expected and failed to find. Where was the "soulless" attitude of the big corporation to its employees and the public? But I prefer most to admire the spirit of loyalty to the Company which animates its members and the friendly co-operation existing between all whom I met. And I make bold to say that I have suggested reasons for the faith that is in me.

F. G. TURNER.

The New Attitude

THE telephone is no longer found in unexpected places,—on the contrary, surprise is excited only when a telephone is not found wherever a user may happen to be.

Two instances have recently come to our attention. One is that of a man who complained that he stopped off in a boat at an island in the outer New York Harbor, and was unable to call up his office because there was no telephone there. The other was a complaint that there was no telephone in a little out-of-the-way railroad station up state.

In the first case, the heavy expense of laying and maintaining a submarine cable, and the difficulty of rendering service for casual and infrequent visitors who might want to use it, were not considered, the attitude of the complainant being one of surprise that there was not a telephone there under any circumstances.

In the other case, an accident occurred near the small station, and a passenger wished to notify his office that he would be delayed, but could not do so as there was no telephone. His protest was forwarded to our Company, which took it up with the railroad company, and a coin-box telephone was installed. This earned a letter of appreciation from the passenger when he was informed of the fact, although he might never again have occasion to use that telephone.

This new attitude on the part of the public towards the telephone is almost universal.

Mutual Benefit Society Vaudeville and Dance

ON February 7, 1913, the New York Telephone Company Employees' Mutual Benefit Society gave a vaudeville entertainment and dance at Terrace Garden, Manhattan, which was attended by about 1500, made up of members, their families and friends.

The program started with a vaudeville show which would have done credit to any of our leading theatres. From the appearance on the stage of Harry Thomson, "The Mayor of the Bowery," who unburdened himself of a choice repertoire of songs and jokes, until the curtain dropped on the Streblefield Trio and their acrobatic feats, there was not a dull moment. One of the biggest hits was the baritone solos by Mr. W. J. Coogan who was forced to respond to four encores.

After the performance, the seats were whisked out of sight and the floor was soon crowded with dancers. The grand march was led by Mr. and Mrs. J. A. Gowdy.

W. G. Farrell was again chairman of the arrangement committee and the orchestra was led by H. G. Ives.

We extend hearty congratulations on this most successful occasion, whose value as a means of linking together the employees of our company cannot be measured in words.

WE omit from this issue the pages of short items from all over the territory, which have been one of the most interesting features of the magazine, but they will appear next month and in subsequent issues as heretofore.

Digitized by Google

The Public Health Movement

And Our Part in It

DR. ALVAH H. DOTY achieved an international reputation as Health Officer of the Port of New York and by his contributions along scientific and practical medical lines to the world's knowledge of health.

It is therefore notable and significant that the services of so eminent an authority have been secured in the administration of the Pension, Disability Benefit and Insurance Plan of the Bell System.

"To cure disease has been characterized as the voice of the past; to prevent it as the divine whisper of the present."

These words are quoted from an article on "Mouth Hygiene and Its Relation to Health," by Dr. Arthur H. Merritt, D. D. S., of New York, who continues:

"People are everywhere coming to understand that most of the diseases affecting mankind are, to a considerable extent, preventable diseases, and are turning deaf ears towards the voice of the past, while intently listening to the whispered voice of the present."

Medical knowledge is no longer a monopoly of the medical profession. If, for example, the laws of hygiene were observed by the readers of this magazine as well as they are understood by them, there would be a wonderful improvement in our health.

In an article entitled "Scientific Research by the Public Health Service," Dr. J. W. Kerr of the Bureau of Public Health and Marine Hospital Service, Washington, writes:

"The increasing complexity of modern society gives rise continually to new sanitary problems which must be solved and the results applied if we would escape race deterioration and loss of industrial prosperity. Under present conditions the individual is himself unable to exercise all these measures of protection. Public health administration is therefore necessary, and one of its important functions is scientific research."

To couple the intelligent application of knowledge already possessed with the marvelous results that are rapidly following in the wake of each other from scientific research, is the object of what has been termed the "Public Health Movement," which is country-wide, or, in other words, "to prevent disease and to prolong life and make it more productive."

In this movement, every employee should be enlisted, for it would be working together for our own common good.

The newspapers announce that there is to be a new member of the President's Cabinet in Washington, to be known as the Secretary of Labor, and predict that a Secretary of Health will soon be added in response to an insistent demand for the creation of a National Department of Public Health. In referring to the latter, one newspaper says: "Then the pill box will have attained the dignity of the anvil and the plow."

This attempt at levity cannot becloud the necessity for such a new department, for as yet there is neither direction nor authority in the enforcement of well known principles of hygiene and other preventive measures that too long have been left to private initiative and support.

Just as no amount of individual observance of the rules of health can ever safeguard a community, and much less a nation, against the dangers which are the natural and inevitable consequences of the "increasing complexity of modern society," however, so, on the other hand, no amount of governmental authority or measures for improving the health of the people can ever take the place of what the individual must do for himself.

At the present time, both are weak. As Dr. Wiley has said:

"If we have never had a department of health, Congress is not at fault; it is the fault of the people of the United States. They are perfectly apathetic about their own health. They go about their work day after day, and then when a break in health comes they submit to all its consequences with a kind of feeling that the disaster is inevitable."

Some persons will sit in a hot, ill-ventilated room, refusing to have a window open for fear of a draught; others will violate all the laws of dietetics, especially with regard to their lunches, while almost every one prefers a street car or an automobile to taking sufficient exercise.

Even where there is a law calling for the physical examination of school children (to cite an instance which illustrates our point), it was found, in one city, that only about one-third of those in the schools were examined at all, and of 264,425 defects found, only 113,278 were remedied.

"To get this total of defects remedied, the health inspectors advised tooth brushes *as treatment* for defective teeth,"

is the comment which a writer makes upon the facts disclosed.

These illustrations indicate that more is to be accomplished by preventive measures than by curative, which recalls the old adage that

"An ounce of prevention is worth a pound of cure."

The Company now provides pensions, disability benefits and insurance to its employees. It plans further steps in conserving the health of its employees. It has long maintained a leading place among the employers of the world, far in advance of many nations, in its attitude towards its employees.

Mr. Theodore N. Vail, in announcing the appointment of Dr. Doty, said:

"It is intended that the medical department shall have wide range in its activities. In addition to the usual functions of such a department it will devise and carry out various methods of health protection known as 'preventive measures.'

"So far as practicable we shall seek the early detection of diseases, particularly those that are communicable, notably tuberculosis, and arrange for the patient's prompt removal, care and treatment. This offers not only a far better chance for the patient's recovery but also protects other employes.

"Preventive measures also will include sanitary conditions in offices and workshops, such as proper lighting, good air, pure water, safe plumbing and the discontinuance of articles in general use which are believed to be agents of infection.

"By various plain and practical methods employes will be instructed in hygiene and sanitation, and we hope that the information thus gained will extend to the home and to the public generally.

"Modern sanitarians know that the public health is best maintained by prevention rather than by treatment of disease after it develops. The measures we plan are of inestimable value, not merely in the interest of our companies, but also in public education on sanitation subjects, for our employes are everywhere in the United States, even in the smallest towns."

Through our individual efforts we can assist in this great health movement which, to repeat, is for our own common good, and place ourselves alongside of our Company.

The need for this individual regard for our own health is becoming increasingly greater. Not only are we liable by inheritance, but by environment—at work, at home, in cars, at church, at theatres, wherever we may be—to diseases, some of which were even undiscovered in the days of our fathers.

When we think of the tremendous influx of immigrants every year from all the countries in the world, we must realize that we have not only to assimilate them into our civilization, elevate them to our standards of honor and morality and inspire them with our ideals, but also educate them into the observance of our laws of health.

Our personal influences in all these matters is potent for good or ill, and as for ourselves, we should raise our standards that the average be not lowered.

Digitized by Google

Some Comparative Remarks After a Journey in America

By Kristen Moller

General Superintendent of Traffic, Copenhagen & Sealand Telephone Company

THE Copenhagen Telephone Company was founded in 1881; the capital of the company is now Kr. 30,000,000.

It has, according to the concession given by the State in the year 1898, the privilege to establish telephones in Copenhagen and on the Island of Sealand. The concession expires in the year 1918, when the Government may acquire the business.

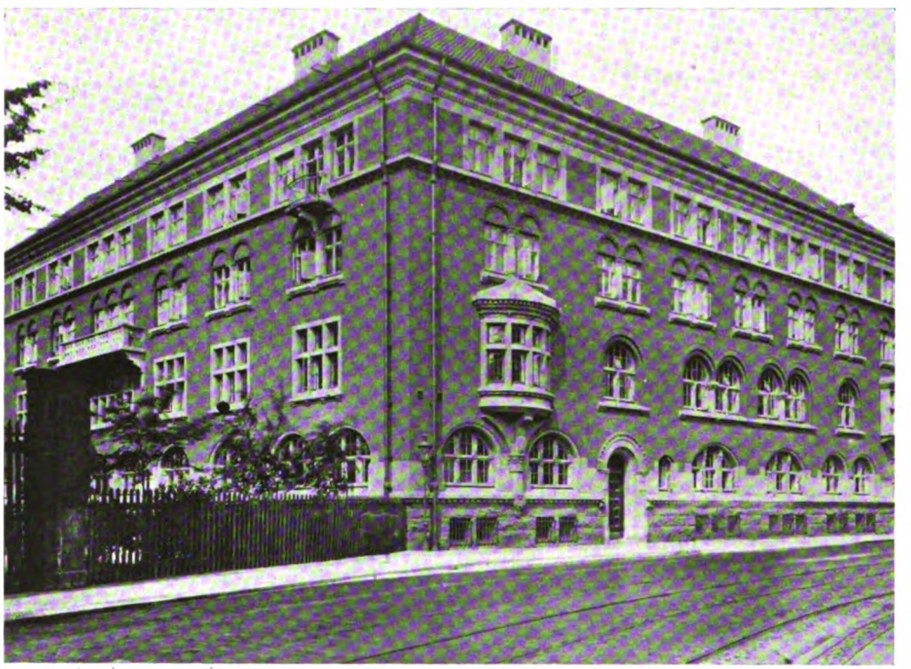
The rates which may be charged are fixed by the Ministry of Public Works for a period of five years, the last of these commencing in the year 1913.

The telephone traffic between Copenhagen and Sealand and the other islands of Denmark, and between Denmark and other countries is governed by the State, so there is communication free of charge between the State and private telephone companies.

Organization

The company is administered by a general manager and is divided into four departments: Commercial and Traffic Department, Line Department, Technical Department and Financial Department. The company employs about 2,000 persons (600 men and 1,400 women). The Commercial and Traffic Department includes the Provincial Department, the Directory, Contracting, Correspondence, Trouble and Operating branches. The Line Department has charge of the construction and maintenance of lines. The Technical Department has charge of all technical matters, the construction and maintenance of the exchanges, insurance, workshops and stores. The Financial Department embraces the Treasury, Accounting Department and Statistical Department.

A TYPICAL DANISH OPERATOR.

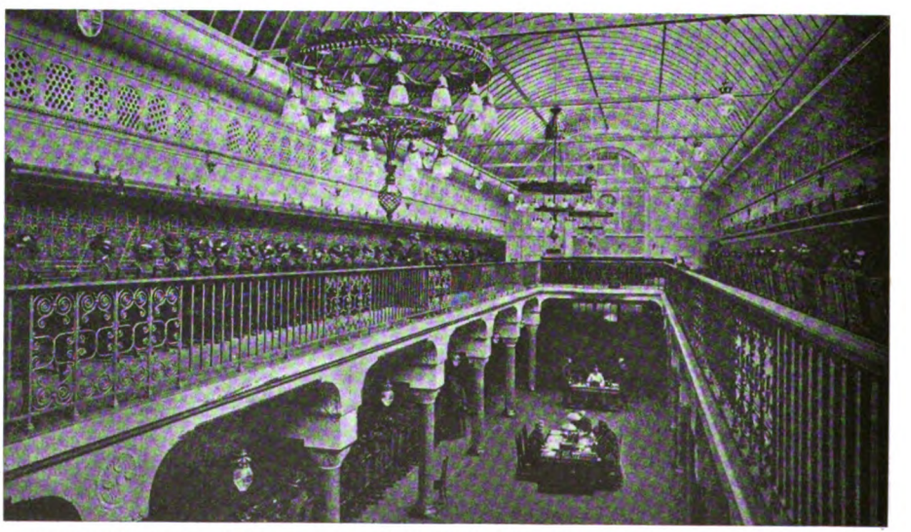


THE TELEPHONE HOUSE, COPENHAGEN.

Operating Methods

In Copenhagen we have supplied the operators with automatic apparatus to assist them in choosing a disengaged call wire and in distributing calls from occupied to unoccupied operators (aid-system). We have likewise installed automatic selectors on heavily loaded lines to the different offices of the company (for instance, toll, information and trouble offices). Furthermore, we have arranged to relieve the operators from the irritating and useless labor with subscriber lines that are constantly "engaged," the operators directing the calls for such connections to special "recording positions" where they are served in due chronological order.

In addition to this the use of a single subscriber line is limited by the tariff regulations to a maximum of 8,000 calls per year from one and the same telephone.



MAIN EXCHANGE, COPENHAGEN—SWITCHBOARDS ARE IN THE GALLERY AS WELL

Digitized by Google

In this respect the working facilities of the operators in Copenhagen are considerably better than in America, where, at present, they seem to be content with keyless ringing and "ancillary jacks," the latter being, in our opinion, of greater use in the quiet than in the busy hours.

Furthermore, the tariff and plant-system used in Copenhagen, which is especially adapted to make the telephone as cheap, and consequently as generally used, as possible, facilitates the work of the operators much more than those used in America. Without entering into details, we would here set forth the main features of the Copenhagen system.

OPERATORS IN UNIFORM—SHOWING DIFFERENT RANKS.

Left to right—Junior operator (until 2 years' service); Operator (2-11 years' service); Senior operator (more than 11 years' service); Supervisor; Chief operator (small exchanges); Chief operator (main exchange).

Two Classes of Subscribers

The subscribers are divided, according to their number of calls, into "small" and "large" subscribers.

The "small" subscribers are supplied with a very cheap installation with short lines to small exchanges,—sometimes party-lines,—so that the tariff basis, i. e. the hire of the telephone, may be minimal. As these subscribers give but few calls, it is of no great consequence that nearly every call must be trunked, whereby the operating cost per call is somewhat dearer.

A 70-YEAR-OLD OPERATOR.

The "large" subscribers, who give a great many calls, are connected with one great, multiple main exchange, without party-lines, and supplied with automatic contrivances whereby we make the operating cost per call as low as possible, which is very important with respect to these subscribers. About two-thirds of the calls from these subscribers do not go outside of the main exchange.

As an illustration of the great difference between large and small subscribers, we would state that one-tenth of all our subscribers (the large ones) give one-third of all the calls, while one-third of our subscribers (the small ones) give only one-tenth of all the calls.

AN INVIOLABLE SPOT. FRA TELEFONISTINDERNES HAVE.

Tariffs

According to the above described system, the telephone tariff in Copenhagen varies considerably, the cheapest charge being about $8 per year and the highest about $50, with many grades between, so that there is something for everybody's taste. The subscribers do not pay per call, as in America, but, as a rule, for a group of 1,000 or 2,000 calls per year. Only telephones of the cheapest tariff pay an extra charge for each call, amounting to about 1 1/3 cent. The counting takes place here by means of a counter disposed in the subscriber's telephone so that he can read it off himself. For telephones with other tariffs, the calls are counted at the exchanges, but only now and then, by test-counts lasting eight to fourteen days, either by the girls or by means of automatic counters on the connections.

Another difference from the American system is, that we make no distinction in our tariff between business and residence telephones. It was a great relief, when we did away with this unnatural distinction some years ago.

One of the results of the cheap rate system is the very extensive use of the telephone in Denmark. As is perhaps known, there are in Denmark more telephones per 1,000 inhabitants than in any other European country, and in Copenhagen the telephone is about as common as in New York.

Digitized by Google

THE CYCLE CELLAR.

THE OPERATORS' DRAWING ROOM.

Telephone Development

On "Foundation Day," the 15th of January, 1881, the number of stations was 22, growing to 2,024 on the 1st of January, 1890; 15,481 the 1st of January, 1900, and about 66,000 the 1st of September, 1912. The number of stations increases about 10 per cent annually. The relation between population and telephones as of January 1, 1912, was as follows:

	Population.	Stations per 1,000 Inhabitants.	Inhabitants per Station.
Copenhagen City	382,600	99.6	10
Copenhagen, with suburbs	600,100	76.7	13
Copenhagen and Sealand	1,094,500	56.7	17.6

The telephone does not reach its full significance until it is found in the hands of everybody. Thus both subscribers and non-subscribers are interested in having the telephone accessible.

The demand for cheaper telephones has years ago led to measured rate service and party-line system, and this demand is perhaps more imperative in Europe than in America.

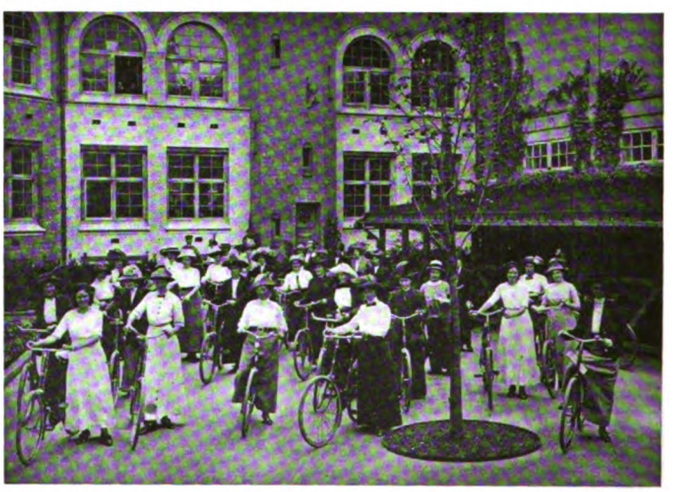
The Operating Force

But now in regard to the girls once more! While the American administration gives the operators a full day's work every day, the general rule with us is to give them only one-half to three-quarters' day's work, so that, on the one hand, there is much less danger of overwork, and on the other hand there is much time left for the young girls to fill their natural place at home (according to European custom). Of course, the wages, owing to this practice, are less. The hours of service are generally every other day from 8 to 2 and every other day from 2 to 8, and thus the girls are given a leisure time of twenty-four hours three times a week (besides Sunday), and a good opportunity to cultivate other interests (especially music, foreign languages, sport, etc.).

Service outside of the regular 6 hours, and all service on Sundays, is paid extra. The salary of the operators is determined according to principles quite different from those in vogue in America, where a telephone girl, as I understand, gets the maximum salary as soon as she is considered perfectly trained. This necessary training is generally acquired in America in from one to three years.

With us wages increase quite slowly, and reach their maximum (I hardly dare write it) after twenty-five years of service. On my American trip, I was always met with an incredulous smile when I spoke about operators with twenty or twenty-five years of service. I can, however, as-

CHRISTMAS EVENING—THE LUNCH ROOM.



LEAVING THE TELEPHONE HOUSE AT 2 P. M.

Digitized by Google

FR. JOHANNSEN, GENERAL MANAGER.

sure my readers that in Copenhagen we have several skillful operators who have served the Company for more than twenty-five years.

The accompanying cut shows such an operator who is still in active service; she is seventy years old—and still there is so much talk about telephone work being unhealthy!

Wages Based on Seniority

Of course there is no doubt but that the principle according to which wages are determined in America is perfectly correct from a business standpoint, especially for young girls, who in America cannot expect any long time of service (I am told that this is because most of them marry); but in Europe, and especially in Denmark, the method of paying wages according to seniority is based upon such an ancient and deep-rooted tradition that it is impossible to alter it at present.

Furthermore, in Copenhagen, the operators have to take into consideration that there is a possibility of their not getting married, and the Company has to allow for a considerable expense in pensioning its employees; and in the face of these two facts, our method of paying cannot be said to be so wrong after all,—even from a business point of view. For under such circumstances it is important to maintain the strength and working ability of the operators as long as possible, and this is most advantageous for the Company as well as for the operators. I believe that our operators, under American conditions, would be worn out before they could obtain a proper pension.

I want to point out here that all employees of the Company have a right to a pension after fifteen years of continual service. The size of the pension increases from one-third to two-thirds of the average wages of the last five years, inasmuch as the time of service has been from fifteen to twenty-nine years in succession.

Operators' Leisure Time

Another important feature is what may be called care of the operators during their leisure time. On this point the American administration are ahead of us, as they supply the operators with beverages and, in some places, also with food. As yet, we have not advanced so far. Our Company shares the cost of keeping a sutler, who furnishes food and beverages at very low prices. In America there are perhaps more rooms for rest, but the operators in Copenhagen have a small cozy garden—an inviolable spot in the midst of the bustle of the great city. At several of the exchanges there are bathing establishments for the girls; and lastly, the Company encourages the girls by providing them with partly or entirely gratis board at homes of recreation, with gratis medical aid, and with partly gratis instruction in gymnastics and languages, and by contributing to the Operators' Support Union.

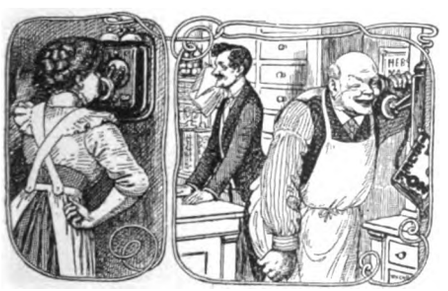
KRISTEN MOLLER, SEATED AT HIS DESK.

Uniforms

I would also state that the Company gives each operator one uniform a year, which they wear when at work. This uniform, which from Copenhagen has found its way to several foreign countries, is not only an economy for the operators, but its chief importance is to be found in its dust-preventing properties, the cloth having been chosen with this in view. Last, but not least, the uniform has a psychic significance because it helps to unite the long row of operators at an exchange into a disciplined phalanx, ready to meet the attack of the subscribers; and it gives a pleasant feeling of quietness and order in the exchange. Different marks of distinction indicate the rank of each operator.

Grades of Operators

In the accompanying picture of a group of operators, the ladies from left to right have grades as follows: Junior Operator (until two years'



TELEFONEN BESORGER DERES INDKOB, SKAFFER DEM BILLETTER TIL TEATRET, SPARER ULEJLIGHED, TID OG PENGE.

KEDER DE DEM, KALDER TELEFONEN PAA DERES VENNER. VIL DE BESOGE DEM, GAAR DE IKKE FORGÆVES, MEN SPORGER FORST OM FAMILIEN ER HJEMME.

UUNDVÆRLIG I TILFÆLDE AF BRAND, ULYKKE O. 1.

SAMPLE ADVERTISEMENTS PUBLISHED BY THE COPENHAGEN AND SEALAND TELEPHONE COMPANY

Digitized by Google

service); Operator (2 to 11 years service); Senior Operator (more than 11 years service); Supervisor; Chief Operator (small exchanges); Chief Operator (Main exchange).

The color of the uniforms is dark green, the distinction laces being yellow.

Girls Use Bicycles

A department necessary at all the Copenhagen exchanges is the stall for the cycles, which must be able to make room for nearly as many cycles as there are operators. An annexed picture from the yard of the Telephone Building after the exchange staff relief at 2 o'clock gives a rather good idea of how indispensable this means of conveyance is to the girls.

Making the Telephone More Useful

As regards the service, there are no great differences. Besides the aiding contrivances of different kinds already mentioned, I would also like to mention one of the latest new arrangements, which is intended to make the telephone more useful.

When a subscriber leaves his home or goes on a journey for any length of time, he can, on suitable payment, have his telephone attended to by the exchange, his connection, by aid of a special plug and cord, being led through the multiple to certain boards. Calls to the subscriber will then go to these boards, whose operators can receive and deliver information. The same boards also supply information about the weather, the results of athletic games and matches, etc., awake people in the morning, and much more. It seems probable that this department, in the course of time, will be of great importance.

Danish and American Mottoes Different

Furthermore, it may be said, in regard to the service, that the Americans attach more importance to the quick execution of an order which has, among other things, given rise to special methods of dispatching toll calls. From the very moment that the order for a telephone has come in, the motto is "everything for the subscriber." The installation of a new telephone takes place in the course of 3 to 4 days, the calls are answered in the course of 3 to 4 seconds and calls to towns lying very far away are negotiated in 3 to 4 minutes. This American quickness arouses our greatest admiration and stimulates us to new endeavors and new ingenuity, in order that we may approach as near as possible to our teachers. It will not be easy, because the mottoes for Danish and American telephone service are so different. In Denmark the motto is: "A cheap telephone, but good and reliable;" In America, on the other hand, it is: "Quick and reliable service, regardless of cost."

Deres Majestæter KONGENS og DRONNINGENS Hof:

Hofmarskallatet Christian VIII's Palæ Amalienborg 10-3 ..... Central 36 28
Hoffourerkontoret Christian VIII's Palæ Amalienborg ..... Central 24 31
Hofholdningen Christian VIII's Palæ Amalienborg ..... Central 47 34
Kabinetssekretariatet Christian VIII's Palæ Amalienborg ..... Central 24 32
Adjutant du jour Christian VIII's Palæ Amalienborg ..... Central 47 34

Den Kgl. Staldetat [Ekspeditionskontor Christiansborg Slot 9-11 ..... Central 24 70
Stalden Christiansborg Slot ..... Central 790

Adjutantstabens Kontor Christiansborg Slot ..... Militær 45

Hs. Maj. Kongens Hofstat og Hofholdning] Sorgenfri ..... [Lyngby 66 Lyngby 242

Hendes Majestæt ENKEDRONNINGENS Hofstat:

Hofchefen Enkedronningens Palæ Amalienborg ..... Central 14 52
Tjenstgj. Kammerherre Enkedronningens Palæ Amalienborg ..... Central 26 19
Inventarieforvalteren Enkedronningens Palæ Amalienborg ..... Palæ 12 44 y
Hoffoureren Enkedronningens Palæ Amalienborg ..... Palæ 12 44 x
Svejtzeren Enkedronningens Palæ Amalienborg ..... Central 58 03
Kokkenet Enkedronningens Palæ Amalienborg ..... Central 57 96

Hoffoureren Charlottenlund Slot ..... Helrup 646
Hofholdningen Charlottenlund Slot ..... Helrup 62

Hs. Majestæt Hellenernes Konge Bredgade 42 ..... Central 20 11

Hs. Kgl. Højhed Prins Harald Jægersborghus ..... Gentofte 204

Hs. Kgl. Højhed Prins Aage
Hs. Kgl. Højhed Prins Axel] Det gule Palæ Amaliegade ... Central 22 91

Hs. Kgl. Højhed Prins Valdemars Hofstat [Det gule Palæ Amalieg.. Central 38 05
Bernstorff Slot. ..... Ordrup 104

Christian VII's Palæ Amalienborg ..... Central 855
Christian den IX's Palæ Amalienborg ..... Central 21 75
Fredensborg Slot 10-12 Form. 2-3 Eftm. ..... Fredensborg 24

23—25 3*

PAGE FROM "ROYALTY SECTION" OF TELEPHONE DIRECTORY. PAGE FROM GENERAL SECTION OF TELEPHONE DIRECTORY.

ABOUT ONE-HALF ACTUAL SIZE

Digitized by Google

Telephone Installation at the Hotel McAlpin

By J. N. C. Graham

Division Equipment Engineer, 15 Dey St.

TWENTY-THREE stories above the sidewalk at the intersection of Broadway and 34th Street, the largest Private Branch Exchange switchboard ever installed serves the Hotel McAlpin. This switchboard could easily have cared for the service of the Harlem, Riverside, Madison Square, Lenox or John Street Central Office Districts at the time those offices were opened on a common battery basis, about thirteen years ago. At that time our largest Private Branch Exchange switchboard had only three positions, and less than two hundred extension stations.

About two thousand square feet of space is required for the telephone quarters. The operating room is 60 feet by 19½ feet; the terminal room 24 feet by 19½ feet and the retiring, locker and wash rooms combined are 30 feet by 14 feet. This space is equal in size to about twelve typical bedrooms. If used for this purpose, it would rent for about $13,000 per annum.

Switchboard

The switchboard has a capacity of 2000 lines. There are five ringdown trunk positions, one local trunk and house service position and ten subscriber or guest positions. Each of the 16 positions is equipped for telautograph service. The circuits are the same as those of a standard No. 1 lamp switchboard without line relays. There are working in the switchboard 1625 subscriber lines, three tie lines, ten local trunk lines and 75 trunk lines to the Greeley Central Office. The so-called official lines which serve the various departments of the hotel are multipled throughout all of the positions.

Switchboard Lighting

Heretofore our telautograph switchboards have been provided with a reflector, set out from the face of the board so as to illuminate the space below the telautograph receivers which hang over the jack equipment. At the McAlpin, this reflector is omitted and we depend upon the general illumination of the operating room for lighting the switchboard in the same manner as at our standard Central Office and lamp Private Branch Exchange switchboards.

Chief Operator's Desk

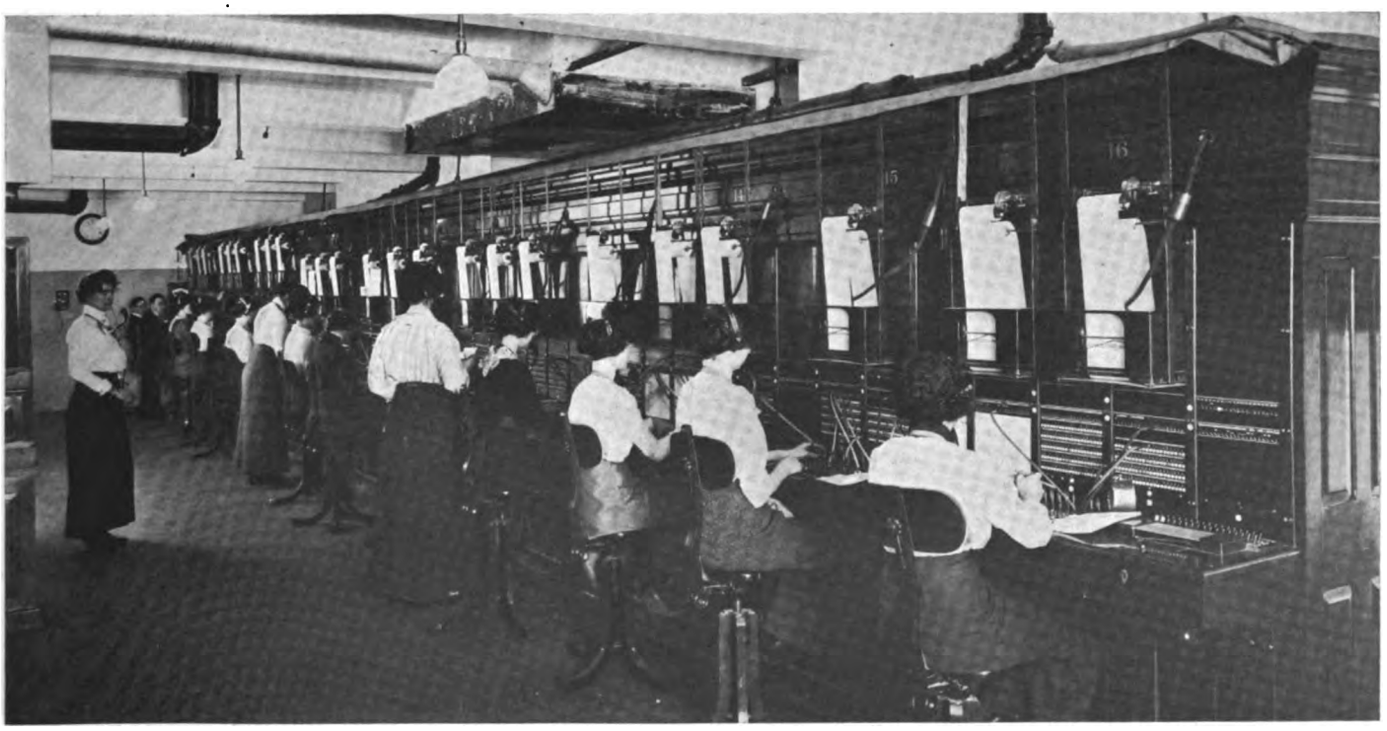
The Chief Operator has six extension lines. In addition, instruction and listening-in circuits connect her desk with the several positions of the switchboard, with the public station switchboard and with the Information Clerks. The desk is also equipped for telautograph service. With this arrangement the Chief Operator can readily supervise the work of all the telephone operators. Also she can personally transmit by telautograph any special orders or information which may be referred to her by the operators.

Operators' Quarters

Comfortable quarters with all necessary conveniences have been provided adjacent to the operating room. The assigning of valuable space for this purpose is now generally recognized by large P. B. X. subscribers as a good investment. It enables the operators to obtain the maximum benefit from their rest periods and thus do better work when at the switchboard.

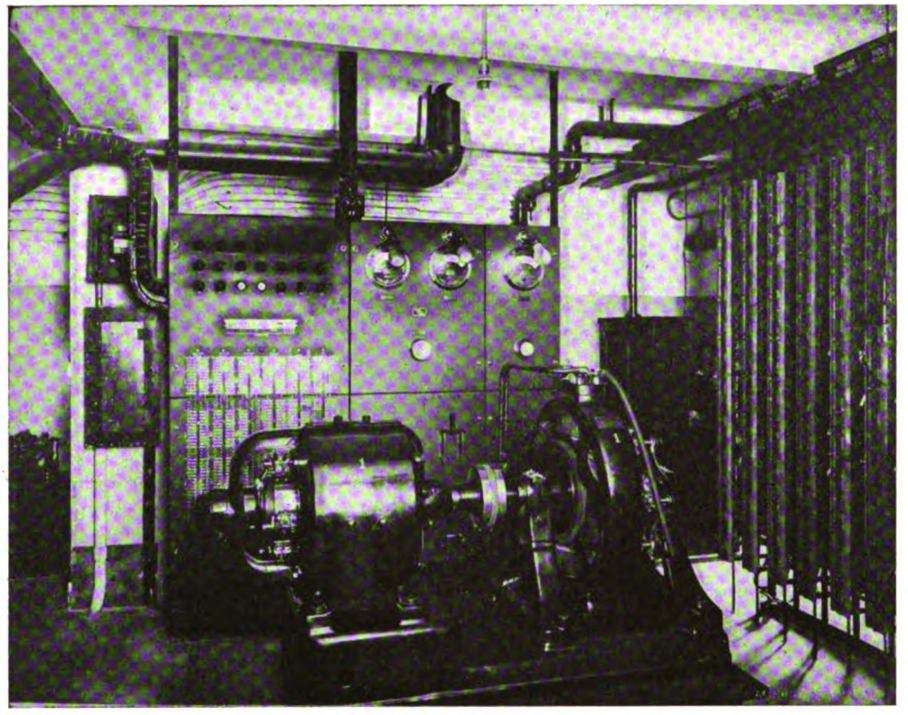
Operating Force

To operate the hotel switchboard and public telephone station requires a force of 44. This force is in charge of a day and a night Chief Operator. Each Chief Operator has two floor supervisors. Reporting to the super-



MAIN SWITCHBOARD—16 POSITIONS, EACH EQUIPPED WITH TELAUTOGRAPH INSTRUMENTS.

Digitized by Google



TERMINAL ROOM ADJOINING OPERATING ROOM.

Main frame, coil condenser and relay racks not shown in the picture. The battery cabinet is in back of the power switchboard. On the wall above the battery cabinet will be seen the feeder and house cables entering the terminal room.

visors are 34 operators and four messengers. During business hours the main switchboard requires from 12 to 14 operators and the public telephone switchboard requires two operators, a cashier and a messenger.

The telephone operating force is probably one of the most important units in the hotel organization. It is estimated that they will handle 500,000 local messages annually. Also they care for an enormous number of incoming calls in addition to the house-service traffic. Every morning the operators call 500 sleepy guests to enable them to catch trains or to keep business or social appointments. All orders from the guests' rooms are given to the telephone operators who transmit these orders by telautograph to the proper departments. Copies of the orders appear on the telautograph receivers at the floor clerk's desk. One of the functions of this clerk is to see that the orders receive prompt attention. The telephone is a very important factor in this supervisory work.

Maids' Annunciator Service

Another new departure in this hotel is the installation of the maids' annunciator in the operating room. This annunciator or system is not part of the telephone installation. It is of interest, however, because of its close association with the general operation of the switchboard.

It is the present practice to install in modern hotels a system whereby the location of the maids on the various floors can be readily determined. At the McAlpin this is accomplished by an annunciator, in which is mounted lamps for each room in the hotel. This annunciator is 13 feet long and 3 feet wide. It was the original intention to mount it above the switchboard in such a manner that the operators on the subscribers' positions could readily see it. It was impossible to find a satisfactory location to accomplish this feature, consequently the annunciator was suspended from the ceiling in back of the operators.

The annunciator lamps are wired to a socket mounted in the door frame of the room to which it corresponds. When a maid enters a room she inserts a lamp or short-circuiting plug in the socket. This lights the lamp in the annunciator, thus indicating the location of the maid.

When a guest calls for a maid, the operator receiving the call advises the supervisor, who in turn informs the operator where the maid nearest to the calling room is located. The operator then calls the maid over the telephone circuit to the room in which she is working and gives her any instructions required.

Information Clerks

Three clerks are required in the hotel office to furnish the telephone operators with information to enable them to complete incoming calls for guests. These clerks are known as Information Clerks. Two of them have breast transmitter sets and special monitors equipped with calling cicuit keys. These sets are connected to order circuits from the switchboard.

Whenever an operator requires information regarding a guest, she gives the facts, together with her position number, to the Information Clerk over the order circuit. The clerks are within reach of the hotel records and can, therefore, give prompt advice regarding the movements of guests and the location of guests' rooms. When the information has been obtained, the clerk presses the calling circuit button in her monitor which corresponds to the switchboard position of the operator requesting the information. This lights a lamp in front of the operator

MAIN PUBLIC TELEPHONE STATION.

Fifteen receding door booths and four open stations. This is one of the busiest portions of the hotel.

Digitized by Google

TWENTY-FIRST FLOOR PANTRY.
Showing new type metal flush mounted wall set.

who goes in on the circuit and is given the information required. This method of operation is speedy and avoids any chance of the Information Clerk interfering with any switchboard connections which may be in progress.

The third clerk acts as a supervisor. She checks the reports of the two operating Information Clerks, gives personal attention to calls for guests who cannot be readily located and cares for changes in the hotel records. In order to avoid confusion and misunderstanding, it is essential that these records be posted promptly. Registration has at times been at the rate of 120 guests per hour.

At present the Information Clerks are handling daily between 7 A. M. and 12 midnight 800 information calls. These calls are often at the rate of 200 per hour.

Paging

Few people realize the difficulty experienced in locating guests of a hotel to deliver messages or advise them of telephone calls when they are not in their rooms. These difficulties are in direct proportion to the size of the hotel. Not only must the page find the guest, but he must do so in a reasonable time. Waiting is a tedious task to the person at the far end of a telephone line. Delays must therefore be avoided as they reflect seriously upon the general efficiency of the hotel service.

At the McAlpin the page system is unique in that it is operated from four different points simultaneously. The telephone operator delivers her message by telautograph to each of the page centers. Each center is equipped

NEW TYPE METAL FLUSH MOUNTED WALL SET.
This view shows the general arrangement of the apparatus mounted on the door.

FLOOR CLERK'S STATION.
There is one of these stations at the head of the elevator corridor on every third floor. The clerk is responsible for the delivery of mail, packages, etc., and for the prompt completion of orders from the rooms over which she has supervision. In this work the telephone is indispensable.

with two telautograph receivers. The message is, therefore, reproduced at eight instruments. Each copy of the message is taken by a page who covers his rounds in about two minutes. Thus in this short time the entire public portion of this large hotel can be paged for a guest.

To operate this system requires the hourly use of 780 feet of paper, 5 inches wide. The paging messages are frequently at the rate of 75 per hour.

Terminal Room

The terminal room adjoins the operating room. It contains the main and intermediate distributing frames, relay and coil racks, fuse and power panels, machines, battery and Wire Chief's desk.

Ordinarily it is not necessary to install an intermediate distributing frame in connection with an installation of the McAlpin type. Owing, however,

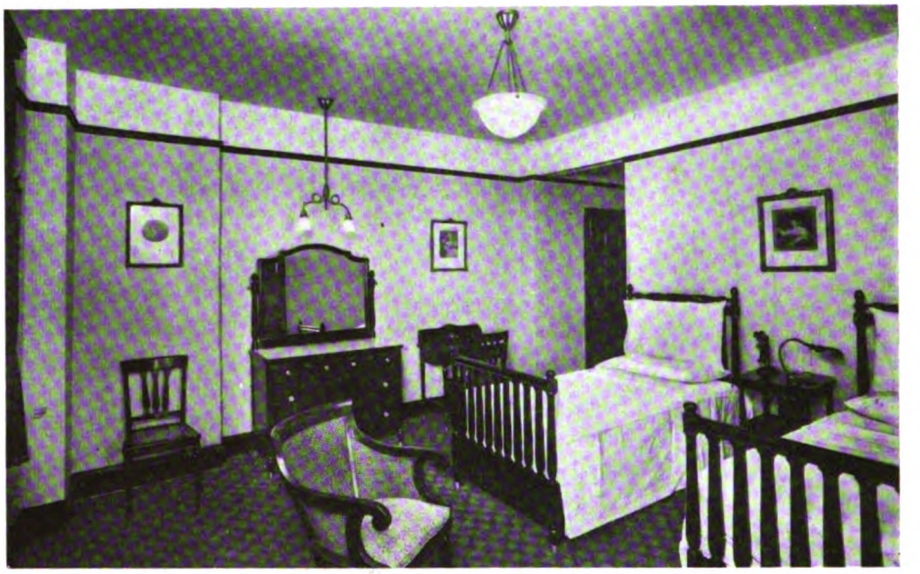
Digitized by Google

to the uncertainty of the method of numbering the rooms at the time the board was designed, it was thought advisable to install a frame to make the switchboard numbering more flexible. As installed, the jack numbers in the switchboard correspond to the room numbers and thus avoid the use of designation strips in the multiple. This numbering arrangement is the same as in our Central Offices and greatly facilitates the operation of the board.

Power Plant

Power is furnished from a 175-ampere charging unit in conjunction with a 15-F type storage battery having a capacity of 560 ampere hours. Ringing current is ordinarily furnished over a generator feed from the Greeley Central Office. A 75-watt ringing machine has been installed for emergency use.

Current for operating the Telephone Power Plant is supplied from the Hotel Power System.



BEDROOM SHOWING METHOD OF INSTALLING DESK SET.
The face of the new type metal flush mounted subscriber's set can be seen in the back of the stand.

LADIES' PARLOR—MAIN FLOOR.
One of the several public rooms equipped with jacks for portable telephones.

Wire Chief's Desk

A standard Private Branch Exchange Wire Chief's desk is furnished for the use of the Inspector in charge of the plant. This desk has the standard voltmeter testing combination and holds the card catalogue of the stations, trunks, etc. These records are kept in the same manner as the Wire Chief's records in a regular central office. The Inspector does not leave the hotel during business hours except for emergencies.

Telephone System—The Nerve Center of the Hotel

It is difficult to grasp the immensity and the completeness of the hotel. The building occupies 30,000 square feet of ground at the transportation center of Manhattan. It rises 25 stories from the street and has three sub-basements. It contains 1500 rooms and 1100 baths, and has a working force of approximately 1500 persons. It can comfortably house 2500 guests. To make the excavation for the foundation, it was necessary to blast nearly 2,000,000 cubic feet of solid rock, weighing 150,000 tons. The building contains seven miles of heating risers, mains and returns and 115 miles of electric light wiring. A total of 13,000 tons of steel were used in its construction. It cost complete $15,000,000. This is the amount Thomas Jefferson, as President of the United States, paid Napoleon in 1803 for the 875,025 square miles comprised in the Louisiana purchase.

The hotel management realizing the necessity of prompt communication for the successful operation of a hotel of this size has had instruments installed in all of the private rooms, cor-

LOBBY—HOTEL McALPIN.

Digitized by Google

ridors, offices, kitchens and other departments. In addition, it has arranged for portable instruments for service in the grill and other public rooms. Also there is a large attended public telephone station on the main floor and smaller groups of public stations on the grill floor and on the mezzanine floor.

The entire telephone installation has been designed with a view to afford adequate facilities to care efficiently and comfortably for the guests. It is the major medium of communication in the hotel, and is supplemented by the telautograph and pneumatic tube systems with which the building is equipped.

Station Equipment

There are at present in service 1625 stations. Those in the guests' rooms, halls and service pantries are of the new metal flush type. They consist of an outlet box installed in the wall by the subscriber during the construction of the hotel. A frame carrying a hinged door is fastened to the outlet box. The induction coil, condenser, ringer, hook, transmitter bracket and line terminals are mounted on the inner side of the door. The outer edge of the mouthpiece on the wall type instruments projects only about 3¾ inches from the wall. In the case of the desk type instruments the gongs project only about 1¾ inches from the wall. This is the first installation on which these instruments have been used by this Company.

When the hotel has been completed in all its details, it is expected that there will be in service over 1700 stations. This is a greater number of stations than in the famous town of Saratoga, which is noted for its hotels. It is as many as are in service in the Kingdom of Greece, which has an area of over 15,000 square miles and a population of more than 2½ million. The installation is practically as large as the entire Telephone Plant of Bulgaria with an area of over 38,000 square miles and a population of 4½ million. It is larger than the Plant in any one of 300 of this Company's Central Office districts. The installation cost about $50,000.

HOTEL McALPIN.
25 stories high, occupies 80,000 square feet of ground, 33rd to 34th Streets on Broadway, accommodates 2,500 guests—cost $15,000,000.

Attended Public Telephone Station

The main public station is located on the east side of the lobby, under the mezzanine floor, near the 33rd Street entrance. It consists of a standard two-position public station switchboard in an enclosure and fifteen booths. Service from the booths is obtained over two tie lines to the hotel switchboard and eighteen trunk lines to the Greeley Central Office.

The booths are of the folding door type and are lined with plate glass. They were installed by the hotel and are equipped with hotel sets in the standard manner.

Cable and Wire Plant

To connect the stations to the switchboard it was necessary to install 7184 feet of cable, ranging in size from 11 pairs to 606 pairs. These cables weigh about 24,000 pounds and contain about 522 miles of conductors. In addition to the cables, approximately 200,000 feet of inside wire and 15,000 feet of cross-connecting wire were used, thus making a total of 600 miles of telephone conductors. This is sufficient to extend two-thirds of the distance between New York and Chicago.

"Finder of Men"

"TRUTH is stranger than fiction," and the strongest advertisement is a personal demonstration.

Some months ago, the American Telephone and Telegraph Co. printed an advertisement entitled "Finder of Men," which told how, through the long-distance service of the Bell System, a man may be reached wherever he is.

How literally true that advertisement is was illustrated when it became necessary for the Syracuse Chamber of Commerce to change the date which had been set for a visit of Ex-Governor Hadley of Missouri to deliver an address before that body.

One date had been set, which was not satisfactory to the Governor. Another date had been suggested, but the Governor had not been heard from, and it was found that he had left Missouri for a trip east.

It was of the utmost importance to know definitely where the Governor was, and whether or not he could keep an appointment for Saturday, January 25, in order that notices might be sent out and a representative body of citizens assembled.

Within just one-half hour, by the use of the long distance telephone, the Chairman of the Entertainment Committee of the Syracuse Chamber of Commerce was informed that Ex-Governor Hadley was not at the capitol, Jefferson City, nor at his home in Kansas City, but had left for Chicago and was on a train between that point and Ann Arbor, Mich., and that he was to spend the night with a certain professor in Ann Arbor and would call the Chairman of the Entertainment Committee in Syracuse as soon as he reached the house.

The Governor called the Chairman at 11 o'clock that night, arrangements were perfected, and he delivered his address in Syracuse on the 25th to an audience of 500 people.

Digitized by Google

Jersey City District

L. C. HALL
District Agent, Commercial

F. B. SCHRADER
District Plant Superintendent

W. L. COOK
District Traffic Manager

THE Jersey City District, like most telephone territory, is made up as far as area is concerned from three standpoints, which are naturally the three main departments of the telephone company. According to the Traffic Department's geographical division, this district embraces the exchanges at Bayonne, Bergen, Jersey City, Hoboken and Union, covering a territory 15 miles long and averaging three wide. The Commercial Department's boundaries coincide with the Traffic. The Plant Department, however, also includes the greater part of Staten Island, Richmond Borough, New York City.

Growth and Importance

The great growth of the Jersey City District is shown by the fact that on January 1, 1913, there were in service within this area 13,549 lines and 26,551 stations as compared with 11,514 lines and 23,825 stations in 1912, 9,960 lines and 21,147 stations in 1911, and 3,676 lines and 8,273 stations in 1905. All of the exchanges in the district, which is unique in the fact that it has no magneto offices with the exception of Jersey City, have at least doubled the number of working lines and stations in eight years, and one office, Union, has trebled it.

This district is the gateway to New York from the South and West and is the converging point of all the long distance telephone and telegraph lines connecting the metropolis with the rest of the country.

Telephonically the Jersey City District is connected with Manhattan by a large number of submarine cables lying in the bed of the Hudson River, which carry all the trunk, toll, tie and private lines in the surrounding territory.

Telephones at Steamship Piers

At the North German Lloyd, Hamburg and Holland American line docks are coin-box public stations for the use of patrons. These stations, however, are for the convenience of people who may have occasion to use the telephone in the intervals between sailing days. At the North German Lloyd pier there is an attended public station board of eight lines, at the Hamburg, one of seven lines and at the Holland American, one of six lines.

At all the piers of the steamship companies are private branch exchanges with half a dozen or more booths which are operated only upon the arrival or departure of steamers.

Handling the Traffic

The days of sailing being advertised, the furnishing of an attendant at such times is merely a routine matter and the traffic, while heavy, extends over a considerable length of time prior to the actual departure of the steamer. The question of handling the traffic upon the arrival of a steamer, however, presents a different aspect. When an incoming vessel is expected to dock, the Public Telephone Department is notified and arranges to have an attendant on duty at the pier.

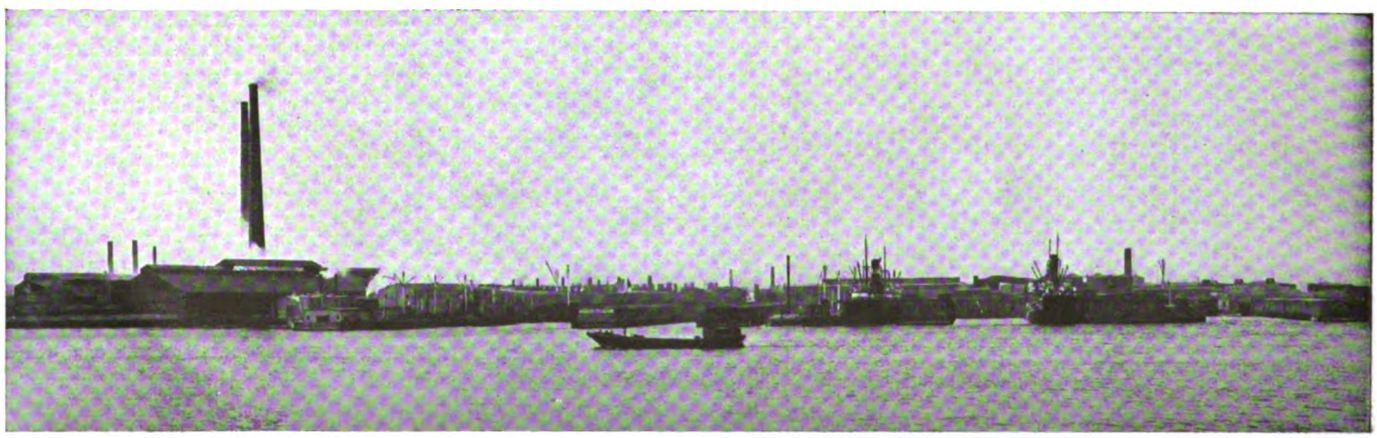
As soon as the passengers go ashore, the first thing they think of, after greetings are over and customs inspections are under way, is the telephone. It is not long before all the booths are occupied, and while some patrons are awaiting their turn, others are writing telegrams to be delivered by telephone. Not only are friends notified of their arrival, but business men get in touch with associates, orders are given for the opening of houses; in fact, all the messages are of a character which demands the greatest alertness on the part of the pay station attendants, and the operators in the central office It is not infrequent to have all lines at these pay stations busy almost continuously one hour and a half to two hours. After this interval, however, the business falls off perceptibly and within four hours after the arrival of a steamer the service of an attendant at the switchboard on the pier is no longer necessary.

Railroad Telephone Equipment

This district is also a great railroad center, Jersey City serving three of the large railroad terminals, the Pennsylvania, the Central R. R. of New Jersey, and the Erie.

The Pennsylvania has an equipment which would constitute a fair sized central office, maintaining a six position board of which five positions are working in the busy hour. There are 125 extension lines with 169 stations and 81 tie lines working at the board, together with 13 lines to the central office. The Erie has a three position board with 82 extension stations and 15 tie lines. It has 15 lines to the central office, 5 of which are for outgoing business only and 10 for incoming business.

The telephone service at the Central R. R. of New Jersey is handled by two separate two position switchboards; one for the Central and the other for the Lehigh Valley R. R. The former has 29 extension lines with 45 stations, 5 tie lines and 7



STANDARD OIL PLANT, FROM STATEN ISLAND, LOOKING ACROSS THE KILL VON KULL.

Digitized by Google

TRAFFIC SUPERVISORY FORCE

JERSEY CITY.

Left to right, standing—Misses B. Powers, T. Gorrill, M. Sharmann, K. Dunleavy, M. Duffy. Left to right, seated—Misses A. Reincken, K. Renz, M. Riordan, E. Greenslade, J. Pickett, K. Sharmann. Seated on floor—Miss A. Hoffman.

BAYONNE.

Standing, left to right—Miss Howlett, Miss Moran, Miss Dalton. Sitting, left to right—Misses Keegan, Golden.

BERGEN.

Rear row, left to right—Misses Kennedy, Boyle, Fallon, Nolan, Tyler. Front row, left to right—Misses Clark, Lee and Schultz.

UNION.

Left to right—Misses Smith, Reiderer, Flynn, Bryson, Lorenz and Jenkinson.

JERSEY CITY DISTRICT

HOBOKEN.

Left to right—Misses Fuchs, M. Conroy, A. Schwab, M. Haverty, C. Harris, E. McCurdy, J. McCarthy.

Digitized by Google

lines to the central office; the latter has 69 stations, 9 tie lines and 6 to the central office.

Hoboken also has a large railroad terminal, the D. L. & W., which has a 5 position board with 51 tie lines, 99 extensions and 13 lines to the central office. Union furnishes service for still another railroad, the West Shore.

Interesting Surroundings

The stranger to our shores as well as the native when not busy using the telephone never fails to find something new and interesting in and about this district. Across the river is Manhattan Island with its great skyscrapers rising hundreds of feet in the air and teeming with life and activity. Down the bay is Staten Island, which is Richmond Borough, New York City. On Staten Island is Fort Wadsworth, one of the grim guardians of the country, keeping close watch on the Narrows, the entrance of New York Bay. Located upon Bedloe's Island, close to the Jersey shore is the Goddess of Liberty, holding a torch 300 feet above the waters of New York Bay. But Liberty is not isolated for she can call up the Bergen Exchange.

"Quarantine"

Just outside the Narrows, in the lower bay on Swinburne and Hoffman's Islands, is a group of buildings more peaceful looking than the forts, and protecting not only New York, but the whole country from a more deadly foe than a hostile fleet, the danger of cholera, smallpox and other dread diseases which might be brought on ships from foreign countries. This is "Quarantine" where all cases of sickness on incoming vessels are carefully examined. It has a private branch exchange with extensions in the different buildings, connected to the Tompkinsville, S. I. Exchange by a submarine cable.

Immigration Station

A group of buildings located on Ellis Island constitutes the immigration station where foreigners seeking new homes in the land of the free must satisfy the officials that they will make desirable citizens before they are allowed to land. Here also is a private branch exchange.

The Palisades

The southern extremity of the Palisades, rising abruptly from the west bank of the Hudson River, terminates in this district, stretching from the northern part of Hudson County down as far as the boundary line between Jersey City and Bayonne, and gradually declining from an altitude of 250 feet to sea level. The rock foundation of the Palisades is as hard as flint, and the digging bar makes no impression on it. If a land owner builds a house upon the Heights, he is fortunate if he can excavate his cellar without blasting, and in setting poles the Plant Department has to blast many a hole.

The Plant Man's Difficulties

The plant man has many difficulties in this busy and important district. Hoboken and the lower business section of Jersey City are built largely on land formerly covered by swamps. Hoboken, in fact, is but a step from swamp to precipitous rock, an almost perpendicular wall bordering the city on the west. Tide water rises and falls in several of the main subways in this city, notably in the lower part where the surface of the streets is but slightly above tide water, and water stands in the manholes within 18 inches of the surface. This condition is due to the sewers being below tide water so that they will not carry off the surface and storm water when the tide is high. In some locations the streets are occasionally flooded to a depth of from one foot to eighteen inches above the surface. To meet these conditions when working in the manholes the plant men use a gasoline pump along with two sheet iron cylinders set inside of the manhole casting, the space between cylinder and casting being filled with dirt or sand to make the cylinder water tight. It requires a gasoline pump in about 70% of the manholes to pump them out before the splicers can work. At low tide the water can be kept down by a hand pump.

All sorts of contingencies and emergencies arise due to these conditions but the plant forces by long experience and careful analysis of the cases cope with them successfully.

Traffic Fluctuation

One of the interesting features of the Traffic situation in the Jersey City District is the marked fluctuation in business from hour to hour. A big railroad wreck or a fire or the arrival or departure of a steamer causes a most remarkable increase in the business handled. This is particularly noticeable in Bayonne. The reporting of ordinary fires in this municipality is handled by the Gamewell system, but in case of a fire in the vicinity of the oil works at Constable Hook, the alarm is given by a whistle which can be plainly heard in all parts of the city. Whenever such an alarm is sounded, the Central office is called for information. The business at such times has exceeded the normal busy hour of the day by 50%.

JERSEY CITY CENTRAL OFFICE BUILDING—HEADQUARTERS OF JERSEY CITY DISTRICT PLANT, TRAFFIC AND COMMERCIAL DEPARTMENTS.

Two Memorable Dates

There are two dates in the history of the Traffic Department of the Jersey City District to which the employees point with pardonable pride.

On August 9, 1910, the attempted assassination of Mayor Gaynor of

Digitized by Google

EXAMPLE OF SERVICE FURNISHED 1,000 FEET OFF SHORE IN NEW YORK BAY, NEAR BLACK TOM.

docks. People for miles around felt the shock and rushed to the telephone to get particulars. Here, again, our forces proved their mettle, the operators voluntarily working hours over time and handling an abnormal number of calls.

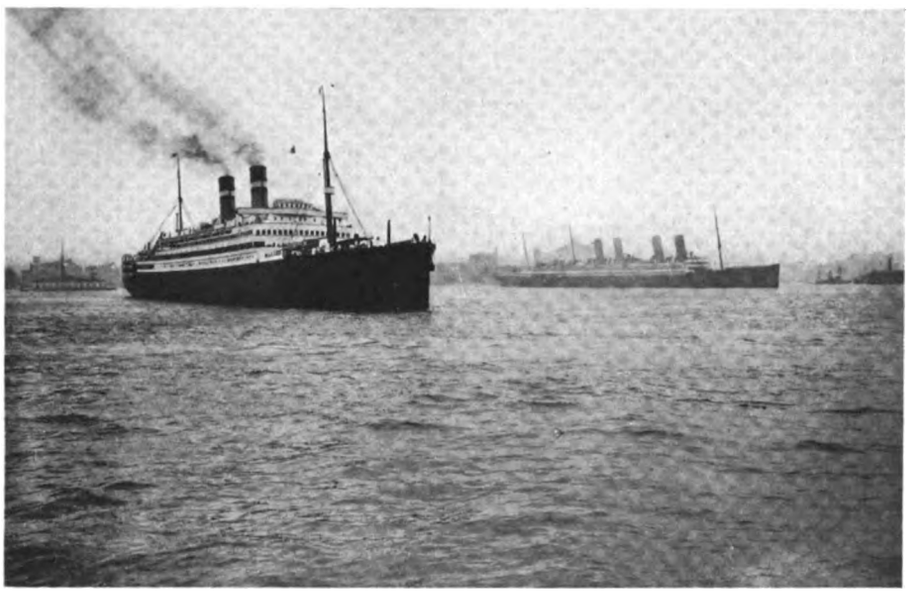
Telephone Service Off Shore

Service off shore is one of the unusual features of the telephone business incident to the Jersey City district. The company is occasionally asked to furnish service on a vessel or float located in the Bay or in the Hudson River, the distance off shore running anywhere from 100 feet up. A telephone has been installed on a float 1,000 feet out in the Bay, separated from the shore by several hundred feet of back water and a deep water channel. Over the back water the line is carried on spiles, while under the deep water channel it has been necessary to place a submarine cable which is brought up and terminated on the float.

New York City caused a great increase in the traffic in and about Hoboken. Extra operators were immediately pressed into service and many of the regular ones worked many hours over time answering inquiries concerning the Mayor's condition. Not even when relieved from duty did the operating force feel that they were relieved of responsibility, but voluntarily called up from their homes to ascertain whether their services were needed.

Additional equipment was installed in St. Mary's Hospital where Mayor Gaynor was confined, the Plant Department having a telephone in working order at the patient's bedside one hour and twenty-four minutes after it was requested.

On February 1, 1911, a tremendous dynamite explosion took place at one of the Central R. R. of New Jersey's



TWO OF THE BIG LINERS.
In mid stream swinging into position for the start of the ocean trip. Service is furnished these boats while in dock by means of portable sets with jack and plug equipment.

THE GODDESS FROM THE REAR.

Each Central Office Has Distinct Classes of Subscribers

Aside from the general features the different central offices have certain distinct classes of subscribers.

Hoboken is important primarily owing to the fact that the lines of three great steamship companies heretofore mentioned, the North German Lloyd, Hamburg American and Holland American, terminate here together with those of the ship yards, coal pockets, and other necessary adjuncts to such terminals. Hoboken is called the "Square Mile City" and is the

Digitized by Google

most densely populated city for its area in the United States.

Bergen, originally residential, is fast filling up with manufactories involving a distinct change in its telephone development.

In Union are a large number of embroidery factories in addition to the usual proportion of residences. This central office also furnishes service to a number of small localities.

The Bayonne Oil Plants

Bayonne has probably the greatest assemblage of oil plants in the country, practically all the operations known to the business being carried on here. At an earlier date the telephone service furnished these plants was usually a number of direct lines scattered over the premises, and the importance attached to telephone service between concerns in this area is evidenced by their unwillingness for a long time to install a switchboard system in place of direct lines for fear that in the event of a disastrous fire or explosion, to which these plants are particularly liable, they would be entirely cut off from all telephonic communication. By locating the switchboards at points practically immune from these dangers the objections were overcome and switchboards installed with their added convenience. The Standard, Tide Water and Texas Oil Companies are located here in addition to number of other large industries and the usual proportion of residences.

Interesting Telephone Development in Jersey City

Jersey City with its proximity to New York and its transportation facilities of all kinds, offers an ideal location for manufacturing plants, large numbers of which are located in lower Jersey City and the Lafayette section. In addition it has a large local business and residential development.

A very interesting development has followed the growth of Jersey City as a manufacturing and commercial center. Until recently it was considered imperative for business concerns there to maintain offices in New York City, but it was discovered that by arranging for a foreign exchange telephone line in a Manhattan central office, but terminating in the subscribers' switchboard in Jersey City, and bearing telephone central office designation in the telephone directory, the subscribers would consolidate their executive offices and their plants across the river with all the economy which naturally follows, and still derive all the benefits which had been obtained by maintaining two distinct headquarters,—one the executive and selling departments in Manhattan and the other for manufacturing in Jersey City.

The Telephone Society of New York

Main Section

THE January meeting of the main section of The Telephone Society of New York, held at the United Engineers' Building, Manhattan, on the 22nd was one of unusual interest. It was opened with a selection by the Blue Bell Glee Club.

Mr. T. D. Lockwood introduced in a brief speech Alexander Graham Bell's co-worker in inventing the telephone, Mr. Thomas A. Watson, whose subject was "Just Before and Just After the Birth of the Telephone." Mr. Lockwood laid stress upon the fact that most of those present were accustomed to the telephone as a matter of course, but Mr. Watson represented those who had faced the many difficulties in getting the invention started on its great and useful career. He alluded in humorous vein to the experiences of Mr. Watson while he and Professor Bell were demonstrating the possibilities of the telephone to the public by means of lectures. His speech was a high tribute to the work and ability of Mr. Watson, and prepared the audience for the remarkable address of that gentleman.

As Mr. Watson ascended the platform and stood there smiling and bowing, the entire audience rose to its feet and greeted him with enthusiastic applause. As soon as he could be heard, he began an address which for clearness and diction, elocution and human interest, could hardly be surpassed. Beginning with his youthful days in the Williams electric shop, Boston, in which he was employed as a mechanic, he described the circumstances which led to the invention of the telephone. How he and Professor Bell struggled to perfect an harmonic telegraph until the idea of a "speaking telegraph" was conceived; how they gradually overcame difficulties and made improvements until the memorable day when the harmonic telegraph was abandoned and their energies were concentrated upon the telephone.

It is impossible to say when the first conception of a speaking telephone entered the mind of Alexander Graham Bell, but it is certain that the telephone was born on June 2, 1875.

While Professor Bell and Mr. Watson were testing the transmitter and receiver of Bell's harmonic telegraph, the transmitter which Mr. Watson was using stuck, and instead of Professor Bell, who was at the other end of the line, hearing through the receiver, the reproduction of the tone he expected, he heard the variations of that tone produced by the twang of the part of the transmitter which stuck.

Immediately Professor Bell rushed into the room in which Mr. Watson was experimenting, shouting "Don't change a thing! What did you do?" Mr. Watson explained, and Professor Bell said if he could reproduce the variations of a metallic sound, he could also, by the same method, reproduce the variations of the human voice.

The efforts of Bell and Watson to convince a skeptical public that the telephone would talk, and many other details, held the audience spellbound. Much laughter and applause were occasioned by the speaker's descriptions of the telephone lectures when he talked, sang, etc., over the telephone to interest audiences which demanded to be "shown." "Waiting for Watson," a poem published at that time in a Lowell, Mass., newspaper and ridiculing his efforts, was received with much merriment.

Mr. Watson alluded with pardonable pride to the fact that he was the *first person to hear a voice over the telephone*. He exhibited types of the first apparatus used and stated that the magnetic bell in use today is exactly the same as the one he perfected in the early days of the telephone.

After the applause which followed this masterly address had died away, Mr. J. J. Carty, Chief Engineer of the American Telephone and Telegraph Company, commented briefly upon the facts brought out by Mr. Watson. The Glee Club then rose to the occasion again and responded to two encores.

Before the meeting adjourned for the reception, a rising vote of thanks was tendered Mr. Watson and he was elected an honorary member of the Society.

The informal gathering was held on the ground floor, where the Blue Bell Orchestra added to its fast-growing popularity, and refreshments were served. Everybody present made the most of the occasion and pronounced the evening one of the most successful and interesting ever held by the Telephone Society of New York, which is saying a great deal.

The February meeting will be held on the 19th. At this meeting Mr. T. P. Sylvan, Secretary to the Pension Fund Committee, will speak on the Plan for Employees' Pensions, Disability Benefits and Insurance. This is a subject which interests every member of the Society, and a large attendance is expected. The Entertain-

Digitized by Google

ment Committee will provide another novelty as a part of the social feature of the meeting.

Hudson Section

The week of January 13 was a notable one for the Hudson Section of the Telephone Society of New York. Four meetings were held, one at Albany on the evening of January 14, and the others at Newburgh on the 15th, Poughkeepsie on the 16th, and Kingston on the 17th.

In a paper entitled, Our Work in the Hudson Division and a Look into the Future, and read by him at each meeting, J. A. Jamison, Jr., Division General Manager, gave a comprehensive description and analysis of the great work achieved in this territory by the Plant, Traffic, Auditing and Commercial Departments and plans for the future. His remarks excited much interest and discussion among those present.

At the Albany meeting, D. C. Cox, Division General Manager, Central Division, and President of the Main Society, spoke. His expressions of kindly regard and sincere praise for the men and their work made a deep and last impression and secured for him a warm spot in the hearts of the Hudson Division men. E. H. Powley, Division Superintendent of Plant, gave an instructive talk on Plant work and some methods of securing efficiency. E. G. Anderson, Division Superintendent of Traffic, spoke in an interesting manner on Traffic work and its problems. The following also gave brief talks: Messrs. F. L. Arland, E. H. Greenleaf, E. A. McDonough, W. Hills, S. H. Brown, B. H. Shepard, Sub-License Manager, Central Division, R. D. Clearwater, W. B. Eddy, J. N. Crocker, J. J. Malone and F. R. Guardineer.

The meetings at Newburgh, Poughkeepsie and Kingston were large and enthusiastic, each having an attendance of about 80 men. They were in the nature of smokers, thus giving members a good chance to get acquainted. At each meeting a chart was displayed, which by a plotted line showed the station growth of the business in the Hudson Division from September, 1909, to January 1, 1913, and a forecast of the growth to January 1, 1920. This line was like a magic wand inspiring much lively and animated discussion. Men from the various departments, among them many who had never taken part in such meetings before, vied with one another in dissecting this curve of growth and describing its import.

Among those who spoke at the local meetings were the following: Newburgh—Messrs. S. Vail, J. Ayres, and E. R. Davenport of the Orange County Telephone Company, C. Ayres of the Warwick Valley Telephone Company and C. F. Fowler of the Walden Telephone Company, E. W. Bigler, G. O. MacNabb and G. W. Marsden. Poughkeepsie—Messrs. Peter H. Troy of Red Hook Telephone Company, G. H. Card, Western Union Telegraph Company, R. Haver, F. L. Brown, G. R. Smith and M. Keddell. Kingston—Messrs. W. Hicks, E. H. Greenleaf, R. S. Williams, R. D. Clearwater, G. O. MacNabb, B. Y. Smith, J. H. Dodge, S. Crump, Jr., and R. C. Dawe.

Central Section

The Central Section of the Telephone Society of New York met in the Telephone Building, Syracuse, on the evening of January 21, the Vice Chairman presiding. Mr. A. H. Howard of the Western Electric Company read a paper on "The Manufacture of Paper Insulated Lead Covered Telegraph and Telephone Cable," illustrated by lantern slides taken in the plant of the Western Electric Company. It was followed by remarks from Messrs. Chesterman, Gillespie, Buchaca and others.

Western Section

The Western Section of the Telephone Society of New York held its 11th meeting in the new Telephone Building, Buffalo, on Thursday evening, January 9.

The meeting was called to order by Chairman Spaulding at 8:30. The Secretary read the minutes of the last Buffalo meeting on December 19, which was followed by the report of the Secretary-Treasurer, showing a membership of 425, and $519.72 in the bank.

A resolution thanking the American Telephone and Telegraph Company and Associated Companies for the Pension and Benefit Plan, was then passed.

The Secretary read the names of two new members who were duly elected.

It was announced that T. P. Sylvan, Secretary to the Pension Fund Committee, would address the Section on the Pension and Benefit Plan at the February meeting.

R. S. Scarburgh, Advertising Manager, then read a paper on "Advertising," which was extremely interesting and instructive, and was enthusiastically received. The address was illustrated by stereopticon views of advertisements published in New York City, Watertown, Syracuse, Rochester and Buffalo. It was followed by remarks by Messrs. O'Hea, Spaulding, Billings, Jennings and Parker.

M. B. DOWNING.

M. B. Downing

IN OUR last issue, announcement was made of the appointment of Mr. M. B. Downing as General Superintendent of Traffic of the Bell Telephone Company of Missouri, together with a brief record of his services with the New York Telephone Company.

In compliance with a great many requests, we reproduce a photograph of Mr. Downing, for the benefit of his large number of friends in New Jersey, Manhattan, and the Hudson Division.

Organization Changes

Real Estate

E. A. Cochran has resigned as Division Supervisor of Buildings, Manhattan and Bronx and Westchester, to accept the position of Superintendent of the new Woolworth Building. It is gratifying that one of our able Real Estate Supervisors has been selected to manage this, one of the largest and finest office buildings in the world.

G. N. Butz succeeds Mr. Cochran.

G. K. McLeod adds Long Island to his territory.

MANHATTAN-BRONX DIVISION.

Commercial Department

G. G. Volkmar, District Agent, assigned to the Dey Street District, Vice W. F. Crowell, transferred to the office of the Attorney.

NEW JERSEY DIVISION.

Plant Department

A. H. Fancher, formerly Record Clerk, Morristown Sub-district, transferred as Special Inspector of Troublemen, New Jersey Division.

E. P. Taylor, formerly Wire Chief at Asbury Park, Monmouth County Sub-district, transferred as Special Inspector of Troublemen, New Jersey Division.

W. F. Behrmann, formerly Supervising Line Foreman, Newark District, transferred as Special Inspector of Troublemen, New Jersey Division.

H. R. Blaine, formerly Record Clerk, Elizabeth Sub-district, appointed Line Inspector, Elizabeth Sub-district.

Digitized by Google

C. G. Schaefer, formerly Wire Chief at Perth Amboy, Elizabeth Sub-district, appointed Foreman Instrument Installers, Elizabeth Sub-district.

H. B. Campbell, formerly Lineman, Jersey City District, appointed Line Foreman, Jersey City District.

W. A. Sullivan, formerly Chief Clerk, Jersey City, transferred as Assistant to Division Chief Clerk.

C. L. Howland, formerly Line Inspector, Monmouth County Sub-district, resigned.

CENTRAL DIVISION.

Plant Department

F. L. Teese appointed General Foreman, in charge of Contract Order Work, Syracuse, reporting to the District Plant Superintendent.

B. F. Stalker, Installation Foreman, will report to F. L. Teese.

R. E. Dewitt, Supervising Foreman, changed to Foreman, reporting to F. L. Teese.

A. C. Van Etten, Wire Chief, Owego, transferred to Syracuse as Central Office Inspector, reporting to the District Plant Superintendent.

F. Widman, Deskman, Elmira, transferred to Owego as Wire Chief.

Traffic Department

W. T. Love appointed Chief Clerk, Traffic Department, vice E. Haliday, transferred to the New Jersey Division.

John P. Lyons, Assistant District Traffic Chief, Syracuse-Warren, transferred to Utica as Assistant District Traffic Chief.

Miss Blanche King appointed Night Chief Operator at Elmira.

WESTERN DIVISION.

Commercial Department

L. W. Shipman appointed Local Manager of a new district, comprising Cherry Creek, Gowanda, North Collins, and South Dayton, with headquarters at 21 Jamestown Street, Gowanda, New York, and reporting to the District Manager, Jamestown, New York.

Traffic Department

Miss Helen Elliott, formerly Chief Operator of the Warsaw, N. Y., central office, has been appointed Chief Operator of the Albion, N. Y., office.

Strikes and Spares

THE teams in the Metropolitan Division Bowling League continue to clear away the dead wood.

There has been little change in the standing, and on January 27 the Plant Accounting boys were still guarding first place. Long Island Revenue has taken second place from Manhattan Commercial which is now running third but holding high average of 849.14. High team score of 946 remains the property of the Engineering aggregation.

High individual score of 253 continues to look good to Grady of the Plant Accounting and Reynolds of the Manhattan Commercial is not yet ready to relinquish high individual average of 180.20.

The season has almost two months to run, however, and several teams still have a look in. Therefore, we are not yet picking winners or making any predictions.

Transfer of Lines From Old to New Murray Hill Central Office

ON December 28, 2,557 lines and 5,955 stations furnishing telephone communications to the district between 39th and 49th streets, Madison Ave. and the East River (72 city blocks) were transferred. Miscellaneous circuits, viz., branch exchange battery feeds and generator feeds, extensions, lines, private lines, tie trunks, etc., totaling 721 circuits, were also included in the transfer.

To furnish trunking facilities to and from the new office, 438 incoming trunks, 775 outgoing trunks, and 75 calling circuits were equipped. To provide the necessary subway cable facilities, twenty-four 606-pair subscriber cables were bridged into the new office, and 23 trunk cables aggregating 3,300 pairs were established.

The subway cable requirements demanded a special study, which resulted in a new subway being constructed from Fifth Ave. to the new office, having a centre racking system.

This system necessitates the building of two manholes side by side in place of one at the required points, substituting a specially constructed cable rack in place of a dividing wall between the two manholes.

The several methods employed by the Construction Department in caring for the subscribers' lines prior to the transfer were bridging, strapping, looping and trunking.

In bridging, the cable in the old office is bridged pair for pair in the new office so that the call number will have the same pair in both offices.

In strapping, the subscriber's line is terminated in the new office in a cable, which does not bridge in the old office, and strapped to a pair in a bridged cable. For example at 34th Street and Madison Ave. a cable 641 —1 to 404 was bridged to cable 3,116 pairs 1 to 404 thus establishing cable 641 in both offices. In another manhole a block fed by 641 cable was thrown into 3,117 cable which was not terminated in the old office. This brought other working lines into the new office. In order to wire these lines back to the old office until the actual transfer, straps were placed in the new office between cables 3,116 and 3,117. Approximately 1,300 of these straps were placed.

In looping, the subscriber's line is terminated in the new office on a pair of a partially bridged cable, but not on a bridged pair, and a loop is laid in between the pair on which the line terminates and a pair in the same cable which is bridged in the old office.

Trunking is similar to strapping and looping and is accomplished by using any spare pair bridged in both offices, for carrying back to the old office any line working in the new office on pairs which are not bridged.

These methods demanded exceptional care in testing and locating trouble on the part of the deskman in the old office, as certain lines were working through a double equipment of main frames and subway cables. The procedure in testing was to locate the trouble between the subscriber's station and the new office, on the main frame of the new office, or between the new and old office.

On the completion of the subway cable work the cross connecting wires were laid in and connected in the new office and the heat coils left out. In making the necessary cross connections 83,000 feet of double and 3,500 feet of single wire were used.

On completing the cross connections of the frame prior to the cut over, all miscellaneous circuits were permanently transferred to the new office.

The next step was the blocking of the cut-off relays at the new office on the lines to be transferred. Cotton sleeving was inserted between the cut off relay armature and the magnet winding to open the battery and ground contacts. A voltmeter test, with the restoring circuit open, was made on the lines so arranged to insure the correct placing of the tapes, after which the heat coils were placed and a talking and voltmeter test of the lines to be transferred was made between the multiples of the old and new offices for continuity and polarity of circuit. Tapes were also placed back of the heat coils in the old office to facilitate their removal at the time of actual transfer.

At 8:30 P. M., the scheduled time of the cut-over, all offices that had minor changes to make on trunk and calling circuit wiring,—changes that could not be made prior to that time, were instructed to proceed, as were the men stationed at the main frame in the old office to remove the heat coils. As soon as the heat coils were removed the men at the relay rack of the new office removed the blocking tapes, which completed the cut-over without interruption of service.

A. E. LINDE,
Wire Chief, Murray Hill.

Digitized by Google

A New Style of Telephone Directory for New Jersey

THE February 1 issue of the Telephone Directory of the New Jersey Division, new both as to form and dress, and containing many improved features, will be distributed on or about March 1 to all subscribers in the northern part of New Jersey.

This new directory will take the place of the Local Directories now issued for the various localities three times each year, and will also replace the Suburban Directory which is issued once each year.

All subscribers in the New Jersey Division will be listed in this one directory, thus increasing the scope of directory information which is furnished to the company's patrons in this territory. Such a book will prove far more valuable and convenient than the two books, one Local and the other Suburban, that have been furnished subscribers heretofore.

The principal feature of the new book is the listing of subscribers under town headings arranged alphabetically. In other words, it will be just the same as if the Local books for all the towns in northern New Jersey were put together in alphabetical order and bound under one cover.

Notwithstanding the vast amount of directory information which it will contain, this new book is very slightly larger than the present Local books distributed in Newark, Jersey City and Paterson, although, of course, it will be considerably larger than the Local books for some of the smaller towns. The small size of the new book has been made possible by the use of a new style of type especially designed for these directories, permitting three columns of listings on each page. The accompanying illustration gives some idea of the general set-up and appearance.

The book will also contain the addresses of our local offices; instructions as to the method of making toll and long distance calls, and other items of general information for the benefit of telephone users.

The directories distributed to subscribers in the northern part of the State will contain listings covering Rockland County, New York, and the town of Tuxedo, New York; the directories distributed to subscribers in towns adjacent to Staten Island will contain listings covering all of Staten Island (Borough of Richmond, New York City).

In addition, the listings of subscribers of telephone companies which operate in the northwestern part of the State of New Jersey and connect with the New York Telephone Company will appear.

The New York City Directory will be distributed to New Jersey subscribers once a year, in May, as heretofore.

This change in the style and scope of the New Jersey Directory is simply another illustration of one of the problems which the Telephone Company must study continually in order to enable the ever growing number of telephone users to obtain the benefit of the ever increasing usefulness of the telephone.

The New Jersey Superintendent of Traffic, in his article appearing in the January issue of *The* TELEPHONE REVIEW, says that during the year 1912 the New Jersey Division Traffic Department handled a total of approximately 140,000,000 originating calls.

It is difficult to grasp just what these figures mean, but they leave no doubt as to the part that the telephone plays today in the commercial and social life of the State.

It is to meet this condition, to increase efficiency and convenience, so as to serve our subscribers better, that the new plan of book has been adopted. It will add just a little more to that in our directories which so well merits the sentiment expressed in the last line of the poem, "The Telephone Directory," with which we are all familiar, "To all the 'world without' this is the key."

★Designates Private Branch Exchange System
"r" Following Name Designates Residence

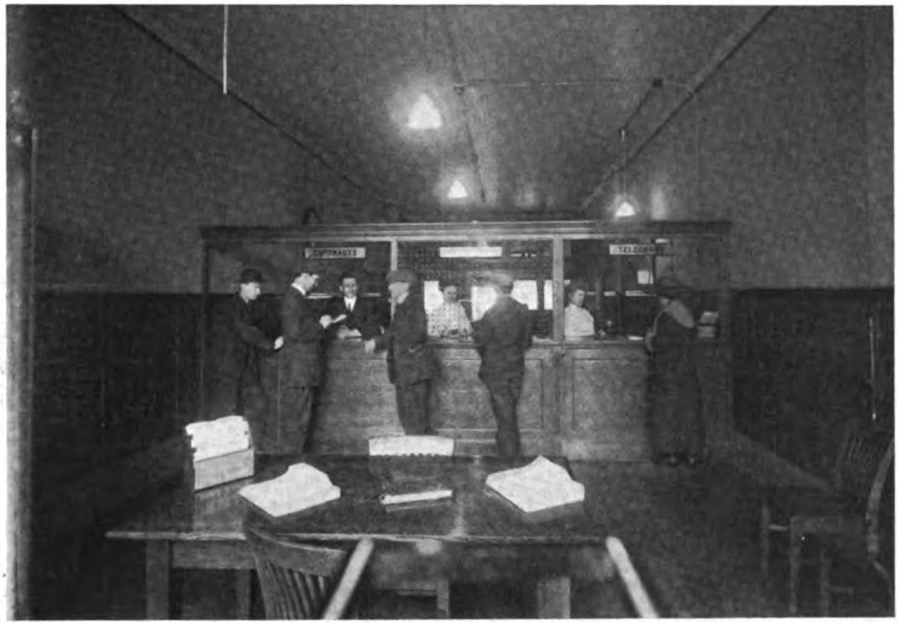
151

PORTION OF A PAGE FROM NEW JERSEY DIRECTORY,—ACTUAL SIZE.

Digitized by Google

Interesting Features of Seneca Falls, N. Y.

IN THESE days, when the press throughout the world devotes daily front-page space to the movement of women's suffrage, nothing could be more interesting than to know that this movement had its birth in the historical village of Seneca Falls, N. Y. In 1848 the first Women's Rights Convention was held in that village, with discussions during two days and with the "Bill of Women's Grievances" as the result of its deliberations. This document, signed by 50 women and nearly as many men, proved the best press story of the year, took its way, in fact, around the world. Among the signers were Susan B. Anthony, famed on account of her fight for temperance—a native of Seneca Falls. Women had obtained the right to hold property in New York State, from State Law enacted in 1845. This law and the entire inauguration of the women's rights' movement were due to the ideas and efforts of Ansel Bascon, also of Seneca Falls.



N. Y. TELEPHONE CO.'S OFFICE, SENECA FALLS, N. Y.

The Barge Canal

This village, almost hidden in the map of New York with the many larger municipalities, is located on the Auburn branch of the New York Central Railroad between Auburn and Rochester. It has many other claims to fame, and from present indications its fame will increase in years to come. The stupendous work of the barge canal will center almost as much here as at any point along its line, although Seneca Falls is not directly on its route. Due to the proposal of H. R. Mix and other influential citizens of Seneca Falls, $1,000,000.00 of the expenditures will be centered at Seneca Falls, working great benefit to the canal itself and greater benefit to the village. Seneca Falls is on the old Cayuga and Seneca Canal which is a branch of the Erie. It will be brought to junction with the barge canal, enlarged, and made a highway for boats to reach Geneva, Seneca Falls and Waterloo. To complete this work the barge canal engineers were to make locks for a fall of 49 feet at Seneca Falls and had a bad engineering feature also in the condition of a marked curve at the point of the locks. The proposal of Mr. Mix and his associates was that the great expense of this work be turned to another engineering plan by which, with the co-operation of the Seneca Falls manufacturers and property owners, the resulting canal job at that point would be better, and would prove an advantage to the village. The accomplishment will mean the immersion of 75 acres of the present developed village beneath some 40 feet of water, the simplifying of the locking system, and the concentration and conservation of the water power of the village which is now being utilized in a somewhat antiquated and uneconomical manner. The plan involves the destruction of factories, stores, bridges, churches and dwellings, and their reconstruction at other points. It means an era of prosperity also to the village, and, if anything, a smaller net expense to the canal appropriation.

SENECA FALLS, N. Y.—GENERAL VIEW OF THAT PORTION OF THE TOWN WHICH WILL BE TURNED INTO THE BARGE CANAL HARBOR.

Digitized by Google

First White Settler in 1787

Seneca Falls obtained its first white settler in 1787. It was the first white settlement between Utica (then Whitestown) and Niagara. It was made up of parts of the two townships of Romulus and Junius which were divisions of the "Military Tract," the two million acres of land reserved by the State for veterans of the Revolutionary War, in 1786. In this connection it is interesting to note the names of the two townships of which Seneca Falls was made—Romulus and Junius. Visitors to Central New York wonder at the many Roman names by which the towns go. There are Marcellus, Ovid, Lysander, Palermo, Fabius and many others. These names were given by the State when this land was set aside for settlers.

Many Claims to Fame

Seneca Falls is the home of the fire engine, Horace C. Silsbee having built a factory for its manufacture in the middle of the last century. The first women's Journal was published in the village, beginning in 1847, called the "Lily," and devoted to temperance; it was pubished by Amelia Jenks Bloomer, the first advocate, if you please, of the women's garments which bore her name. Seneca Falls was the birthplace of Mormonism, Joseph Smith, known as "Mormon Joe," having first expounded "the divine doctrine of the golden plates." (which no one ever saw), and instructed Brigham Young in the tenets of the faith.

Growing Industries

The industrial growth of Seneca Falls seems to be assured, with its added power facilities, and shipping advantages. It is not only on the N. Y. C. R. R. System, but has also the tracks of the Lehigh Valley System, which already has made plans to extend its road to Auburn. In the near future also the barge canal will be completed, with its facilities for the passage of large boats.

Seneca Falls makes nearly all the hand pumps in the world, there being three enormous plants for their manufacture. The village has various lesser plants, manufacturing engines, boxes, woolens, advertising novelties, etc.

Telephone Development

In this village the New York Telephone Company at present has some 623 stations, and with stations about to be added to it, the system will have a total of about 900, which will greatly increase the value of the service to subscribers and the public. It maintains there one of the earliest Joint Western Union Offices established.

An Active Connecting Company

THE Columbia & Rensselaer Telephone and Telegraph Company, with headquarters at West Lebanon, N. Y., entered into a Traffic Agreement with the Hudson River Telephone Company in 1901. At that time it had about fifty subscribers and a one position switchboard, located at West Lebanon. It now has nearly 1,000 subscribers and a three position switchboard at the West Lebanon exchange with exchanges at Nassau, Berlin, Canaan and East Chatham. The outside plant now consists of over 100 miles of pole line carrying 1,000 miles of wire.

It is connected with the City of Albany by three circuits, with Chatham by four circuits, Hoosick Falls by one and the New England Telephone and Telegraph Company at Pittsfield, Mass., by two. During the months of August and September about 6,000 Long Distance calls were handled.

Although a large territory is covered, extending from Nassau on the west to the Massachusetts line on the east, from East Chatham on the south to Berlin near Hoosick Falls on the north, there is no village included which has as many as 1,000 inhabitants, it being largely a farming district with a growing summer residence population.

Lebanon Valley is one of the most beautiful sections in the State. It is widely known as being the birth place and home of Samuel J. Tilden, and he is buried in the old Lebanon Cemetery. It is also noted as being the location of the first Shaker Society, organized in 1794, known as the Mount Lebanon Shakers. Their village is located on the western slope of the Lebanon Mountain and commands a beautiful view of the valley.

Many of the summer residents say they could not have located in this section but for the telephone and telegraph service—a Western Union Telegraph Office having been maintained in connection with the West Lebanon exchange, since it was started in 1901, and what is now known as joint telegraph and telephone office business having been in operation for eleven years. Every subscriber has practically a telegraph office in his business place or residence, being able to send or receive telegrams and have them charged to his telephone at the same rates as though he traveled to the telegraph station.

Mr. Warren Fowler is the General Manager of the Company and has been active in pushing its development, until the plant has so covered the territory that it is possible now to connect any applicant for service without the delays which accompany the building of pole lines.

One of the subscribers recently remarked to Mr. Fowler that now that he had the grocery wagon at the door every week, rural free delivery including Parcel Post, and the telephone and telegraph, the only excuse he could find to get down to the village hotel was to empty the kerosene can on the ground.

Underground Cable

Between Albany and Troy, N. Y.

Subway built	7 Miles
New manholes built	85 Miles
Old manholes enlarged	45 Miles
U. G. Toll cable placed and spliced	11 Miles
Submarine cable laid.....	1100 Feet

ON THE evening of December 31, the Construction Department of the Hudson Division finished the installation of the complete underground toll cable plant connecting Albany with Watervliet, Troy and North Troy. As this is the largest single job that this, the smallest division has yet undertaken, a brief review of its progress may be of interest.

To provide a continuous and satisfactory subway system between the four exchanges mentioned involved the building of 37,000 feet of 8-duct subway in addition to the subway already built through portions of these exchange districts. Eighty-five standard 3½x8 foot manholes were built and forty-five old manholes enlarged to this size on existing subways. Four extra large manholes were necessary to contain loading pots, and on account of obstructions one of these was of the double-decked type in use on some of the toll subways in Manhattan and the Bronx. All of the manholes in the subway were equipped with pulling-in irons at either end which greatly facilitated the placing of the cable.

Digitized by Google

This work was done under three separate estimates and was begun during September, 1911. At that time it was thought that the toll cable would be needed early in 1912, and the subway work was pushed rapidly before severe weather set in. Although hindered by two miles of rock digging and some very wet sections paralleling the Erie Canal, it was possible by the use of nearly seven hundred laborers to complete the entire work early in December, 1911.

Full advantage was taken of the many side tracks of the railroads paralleling the route of the subway, and the numerous carloads of tile, lumber, etc., were consigned directly to the nearest switch from which the material was hauled to the job by the 3-ton truck and other heavy drays. By sub-dividing the local material orders for sand, crushed stone, brick, cement, etc., among local dealers, it was possible to arrange for delivery of this material as it was needed along the work.

The plans for the toll cable were approved in March, 1912, and the cable was ordered on April 15. It consists of 36,000 feet of 202 pair duplex cable for the Albany and Troy section and 20,000 feet of 153 pair duplex cable for the Troy and North Troy section. The 202x cable is composed of 24x 13-gauge, 28x 16-gauge and 150x 19-gauge conductors. The 153x cable contains 24x 13-gauge, 78x 16-gauge and 51x 19-gauge conductors. All of the 13 and 16-gauge conductors are made up in quads for phantom work, and 49x were loaded for the entire distance.

The Western Electric Company had considerable difficulty in manufacturing a cable which would meet the requirements of the Engineering Department, and it was not until October 9 that the first shipment of 153x cable was received for the Troy-North Troy section. This shipment of 20,000 feet was in three carloads on forty-two reels, and it took the cable placing foreman just ten days to unload, distribute, pull in the cable and re-ship the empty cable reels and lags to the Western Electric Company. Our 3-ton Mack truck, equipped with a power driven winch, once more demonstrated its usefulness and enabled us to handle the shipments which followed on the Albany-Troy section in just as good time. Here again the railroads helped us by delivering the cars of cable to the nearest available switch.

At Troy it was necessary to cross the Hudson River, and to accomplish this a 200x 22-gauge single armored submarine cable 1,100 feet long was laid on the bed of the river under the supervision of officials of the United States government. The route taken by the submarine cable is far from straight and had to be carefully chosen to avoid power cables which had previously caused us trouble on our existing submarines.

The last of the cable was placed in the subway on December 6, and it was then a race against time for the Splicing Department to finish splicing and testing of the cable before Jan. 1. In all, ten splicing gangs and four testers were employed on this particular job and although the random splicing was started on October 17, it was not until December 1 that the test splices were given much attention. By the use of four sets of 6-volt storage batteries and tungsten lamps, it was possible to overcome the handicap of the short December days, as it was not possible to test and splice a joint in the cable in less than about eleven hours. The use of the tungsten lamps in the manholes made it possible to finish each splice on the day it was opened and enabled the splicers to distinguish the color code.

Owing to the fact that a long stretch of the subway was below the level of the canal, a great many manholes were filled with water and it required constant pumping to keep them dry while the splicers were at work. The extra helpers doing this work often had to report at 5:00 A. M. in order to get the manhole ready for the splicer at 7:30. During the rainy and cold windy days, special tents were erected over the manholes to protect the splicers and testers while working. In this manner there was very little lost time due to bad weather.

Some time before the actual completion of the splicing, the four Wire Chiefs involved on the route of the toll cable had been furnished with half-tap sheets from which they ran their new cross-connecting wires preparatory to cutting over the trunks to the new cable. They were so interested in the task that they forget their New Year's dinner and worked most of New Year's Day cutting the new cable into service.

Many compliments have been received from subscribers since the first of the year on account of the marked improvement in the circuits north of Albany.

R. P. BUNYAN,
Construction Foreman, Hudson Division.

Believes Public Utilities Should Be Monopolies

EMERSON MCMILLIN TELLS NATIONAL CIVIC FEDERATION THAT TRANSPORTATION, GAS, WATER, ELECTRICITY AND TELEPHONES MUST BE REGULATED BY COMMISSIONS FREE FROM POLITICS.

AT THE 13th annual convention of the National Civic Federation, of which Seth Low is president, the report of Emerson McMillin, Chairman of the Department on Regulation of Interstate and Municipal Utilities, read in part as follows:

The principle of public regulation of quasi-public undertakings is firmly established in this country. The Massachusetts Board of Gas and Electric Light Commissioners antedates the Interstate Commerce Commission and is now almost 30 years old. Congress established a commission to regulate interstate railroads in 1887. Forty-two of the 48 states of the Union today have commissions of one kind or another exercising central supervision over railroads or local public utilities, or both.

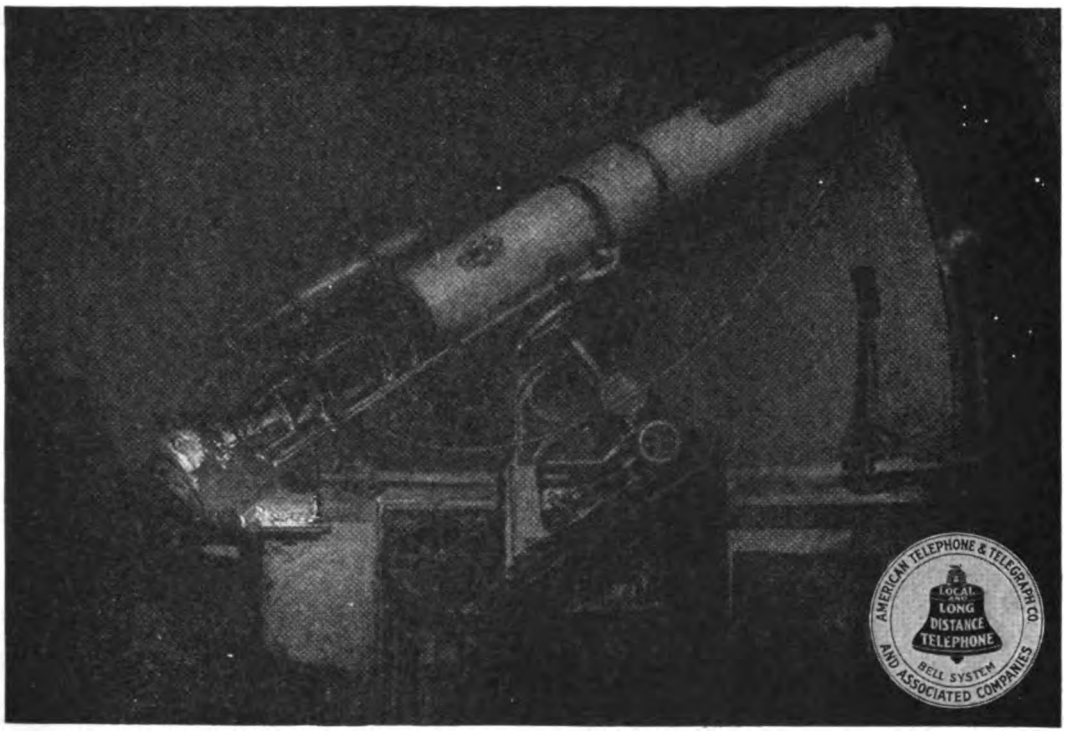
The old idea that the purveyor of transportation, gas, water, electricity and other public services under modern conditions, was engaged in a private business, subject to the same rules of bargain and sales as the dry goods merchant, the butcher or the manufacturer, no longer prevails.

Competition, relied upon in the earlier days to protect supposed public interests, has failed; competition in a public-service business is war.

The furnishing of a transportation, gas, water, electric, telephone or other public service is, and should be, naturally, a monopoly. Unregulated monopoly in any field of endeavor is abhorrent to Anglo-Saxon people. While regulation of public utilities must be based on full recognition of the monopolistic character of the business, it is also true that recognition of monopoly invites public regulation or public ownership and operation. The department believes that not only public regulation is preferable to public ownership and operation, but that public ownership and operation may be deferred only by reasonable public regulation.

The state owes it to its quasi-public agencies performing the transportation, gas, water, electric, telephone and other public services no less than to the public itself to free public utilities from the baneful influence of local politics. The state must see to it that the common law rule of reasonableness and non-discrimination is applied fully and in all respects fairly to these industries.

Digitized by Google



The Telescope of Speech

The astronomer, by the power of his telescope, becomes a reporter of the movements of a hundred worlds greater than ours, and the student of celestial activities millions of miles away.

He points his instrument at any spot in the heavens, and his sight goes rushing through space to discover and inspect a star hitherto unknown.

Up to the power of his lenses, his vision sweeps the universe.

As the telescope may be focused upon any star, so the telephone may be focused upon any person within the range of its carrying power.

Your voice may be directed anywhere in the Bell System, and it will be carried across country at lightning speed, to be recognized and answered.

The telescope is for a very limited class, the astronomers. The telephone is for everyone.

At the telescope you may see, but cannot be seen. At the telephone you may speak and be spoken to, you may hear and be heard. By means of the Bell System this responsive service is extended to the whole nation.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google

In Every Up-To-Date Home.

Indispensable In Business.

IT'S EVERYWHERE!

EVERYWHERE, where men may desire to communicate with other men in a quick, direct, personal way, one finds *the Telephone.*

Our illustrations suggest only a few of the countless locations, many of them unique, where the Bell Telephone stands at the center of a system reaching over 70,000 cities, towns and communities.

In New York City, during the past twelve months, 43,000 telephones and 141,946 miles of wire have been added to the system. On January 1st, 1913, there were in New York City 483,371 telephones served through 67 telephone exchanges and connected by 1,338,767 miles of wire.

These telephones carry daily over two million "round trip" messages.

The Telephone is a useful, dependable and efficient factor in the development of business and social life.

NEW YORK TELEPHONE CO.

In the Deepest Mines.

In the Sky-Scrapers.

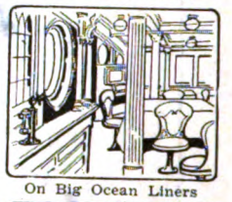
In Banquet Halls

In Lunch Wagons.

In Police Boxes.

In Hospitals.

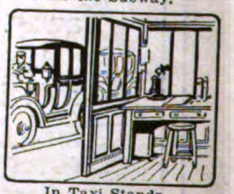
On Limited Trains.



On Big Ocean Liners

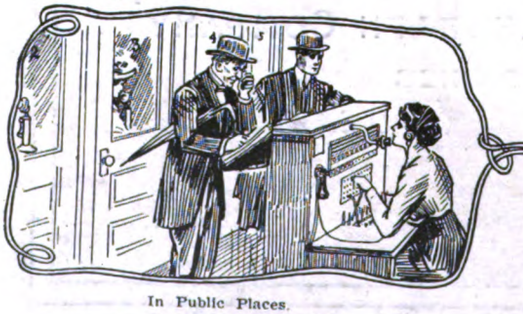
In Elevators.

In the Subway.



In Taxi Stands.

Along the River.



In Public Places.

The Sign that Saves Time.

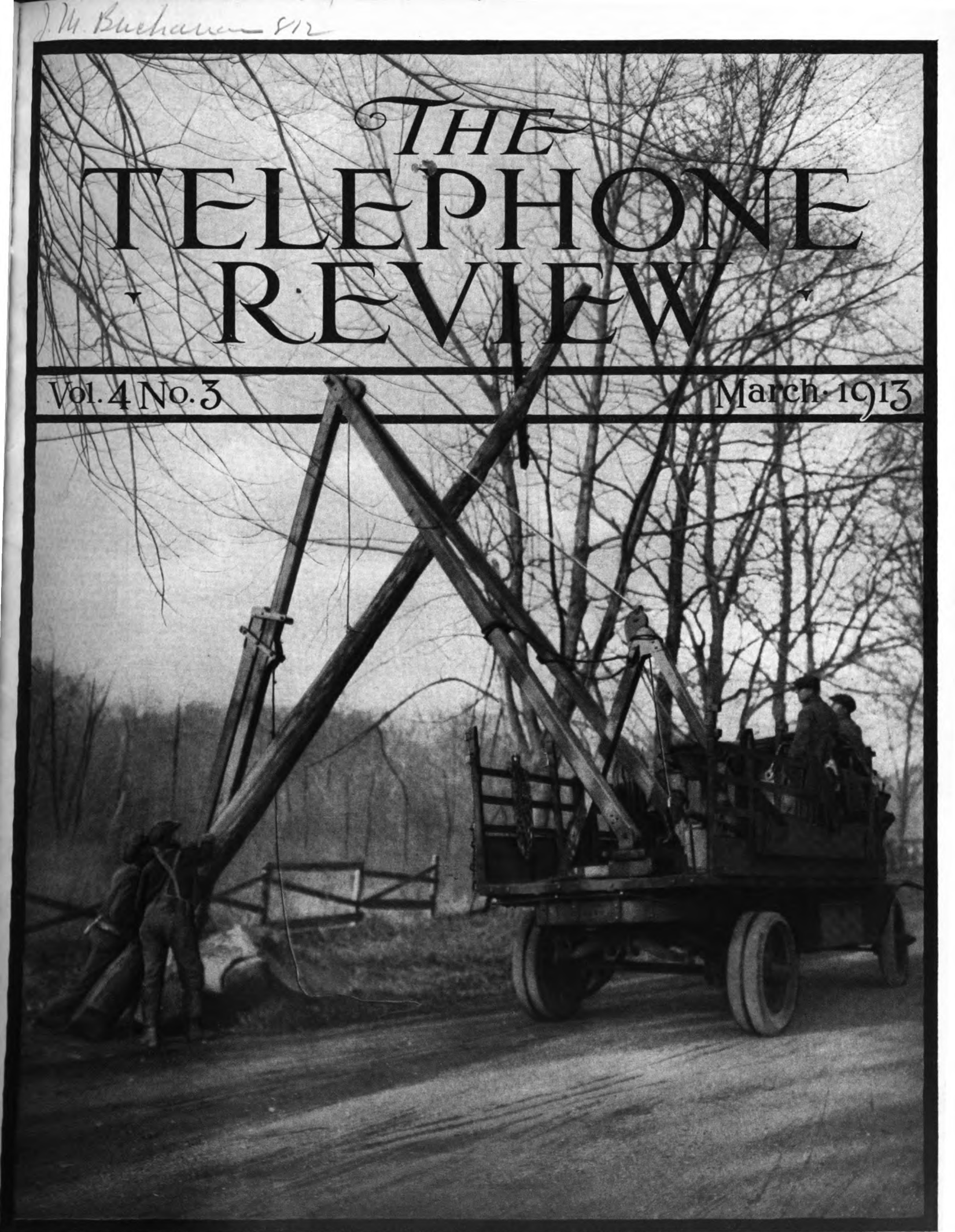
In Department Stores.

Digitized by Google

J. M. Buchanan 8/12

THE TELEPHONE REVIEW

Vol. 4 No. 3 March 1913



Digitized by Google

Approaching The Customer By Telephone

THERE are few salesmen who have not met with the discouraging reception that Mr. Blank is "not in," "busy," "cannot be seen," etc., necessitating additional calls before the interview is granted.

On the other hand, when you called him by telephone, you were successful in reaching him.

Why not approach *your* customers more often by telephone? It is the *sure* way of reaching them.

Of course you have a telephone in your place of business.

NEW YORK TELEPHONE CO.

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV — NEW YORK, MARCH, 1913 — NUMBER 3

***The* TELEPHONE REVIEW**

ISSUED MONTHLY.

Published by the

NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treas.
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, Attorney
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor of Receipts
J A. KENNEDY, Auditor

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to J. D. Newman, Editor.

VOL. IV. MARCH, 1913. No. 3

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.

Remittances should be made by check, draft or money order, payable to the New York Telephone Co.

Reproductions of any of our cover designs, for framing, will be sent to any address upon receipt of a 2-cent stamp each.

The Plant Man on the Job

PARTICULAR attention is called to the series of pictures in this issue showing some of the daily work of the group of earnest men who are actually engaged in installing the telephone system, outside of the central office—the men who build the subway, the pole line gangs, cable placing gangs, splicers, testers, reconcentration men; the clerical force which assigns, writes and gives out the orders; the men who pack, load and deliver the station apparatus and material; the installer who connects the instrument, and the deskman who tests the line and instrument and gives the final O. K. To each and all of these employees, in no small measure, belongs the credit for the perfection of the present day telephone system.

An attempt has been made to illustrate the more important functions of these employees by showing in pictures "the man actually on the job." These pictures are grouped according to the general nature of the work and portray the operations necessary to provide telephone service—from the building of the subway to the connection of the subscriber's instrument with the Central Office switchboard.

Advertising Ideas Wanted

Prize Contest

DO you read the advertisements of this Company? Do you think you could improve upon them?

In newspaper advertisements, circulars, booklets, bill inserts, and many other forms of publicity, the Company has attempted to present the conveniences and benefits of telephone service in an attractive and interesting manner, so that those who are not subscribers will take the service, and those who are subscribers will allow us to provide them with an equipment which will best suit their needs.

It is probable that out of the 25,000 employees of this Company there are many who can improve upon what has been done in the way of preparing advertisements. Certainly the employees of the Company who are most closely in touch with the public and are most familiar with their telephone requirements should be able to suggest advertising ideas that would assist in increasing the value of telephone service.

Here is an opportunity for you to distinguish yourselves! Three prizes, $10, $5 and $3, will be offered each month until further notice, for the first, second and third best advertising suggestions that are suitable for use and are accepted. This contest is open to every employee of the Company, except those in the Advertising Department.

The suggestions need not be limited to one kind of advertisement, the more the better. It is not necessary that the wording be absolutely finished and perfect, nor must drawings, if any are submitted, be the work of a finished artist, so long as the idea is fully conveyed.

The author's name should not appear on the copy submitted, but the name and address should be written on a separate sheet of paper and enclosed in a sealed envelope and this envelope, together with the advertising copy suggested, enclosed in a larger envelope and addressed to "Advertising Contest, *The* TELEPHONE REVIEW, 15 Dey Street, New York City." As the communications are received, the copy and the envelope will be given duplicate numbers. The suggestions will be passed upon by a Committee composed of members of the Advertising Department and the really good suggestions will be submitted to three judges for final decision as to relative merit. The names of the winners in each contest and of those who deserve honorable mention will be ascertained after the awards by opening the envelopes corresponding in numbers to the advertising suggestions selected. Such names will be printed in *The* TELEPHONE REVIEW.

In order to give every one a good start, the first contest will be open until April 15th. Suggestions received after that date will be considered in the contest for the following month—contests closing on the 15th of each month.

Air

IN our article last month on "The Public Health Movement and Our Part In It," we placed emphasis upon preventive rather than curative measures, on the theory that it is better to *keep* well than to *get* well.

In this issue we print a contribution on AIR, written by Dr. Doty. It is a truism that we know the least about the things with which we are most familiar. Certainly that is the feeling we had about AIR when we had finished reading Dr. Doty's article.

The amount of space which is devoted in newspapers and household magazines to beauty rules, such as "How to Remain Beautiful at a Hundred," "How to Grow Thin Without Dieting," "How to Make Your Hair Grow Long and Curly," and others with which all are familiar, are very sure

Digitized by Google

evidences that there is a demand for such "information."

As a matter of fact, the prime essential to both health and good looks is fresh air.

This article on AIR by Dr. Doty is the first of a series which he will write, and which will appear in this magazine regularly each month. The articles should be read and preserved, as they will treat of matters of vital concern to every one, and are from the pen of an eminent authority upon the subjects discussed.

Co-operation Between Departments

WE print in this issue two articles in which the Plant Department in the Western Division is shown to be co-operating actively with the Commerical Department in securing business.

One is a report of the results in the division as a whole during the month of January, and the other is an account of the voluntary action at a social affair of the Plant employees in Rochester, where each man pledged himself to turn in, this year, enough names to reach a total of more than 300 prospects.

As nothing has appeared in these columns for some months on this subject, an employee in the Plant Department in Manhattan, who signs himself "Manhattan," asks: "What is the trouble? Have we forgotten about co-operation?" He adds: "Now, let's get together on this. Let's look around and see if our neighbor is well equipped with telephone apparatus; look around and see if we cannot suggest something that will save his time, or improve his service." The writer feels that it is the duty of every employee to co-operate with other departments. We should do it now and keep on doing it.

Addressing his fellow employees in Manhattan, he says: "Let's show Western that we can practically co-operate, too."

Comparisons are often odious, and the lack of any uniformity in the opportunities which exist for Plant men, in the different divisions and districts, to turn in prospects, makes it impossible to establish any basis for comparison.

We do not wish to hold up one division against another, therefore, because that would not be fair to either, but we should like to hear more about what each department—Plant, Traffic, Commercial and Accounting—is doing to co-operate with the others.

A Compliment to One of Our Covers

REPRODUCTIONS of our cover designs are often distributed at fairs, lectures, exhibits, automobile shows, etc.

At a recent automobile show in Rochester, one of our reproductions of the design which appeared on our magazine in March, 1911, attracted the attention of the Manager of the Albany Automobile Dealers' Association, who wrote the following letter to our Albany office:

ALBANY'S BIG AUTO SHOW HELD BY ALBANY AUTOMOBILE DEALERS' ASSOCIATION.

Albany, N. Y., Feb. 7, 1913.

New York Telephone Co.,
Albany, N. Y.

Gentlemen:

I thought you might be interested to know that at the Rochester Show, some sheets were passed out which carried a reproduction of the ad. which your company frequently uses of a break-down on the road and a Bell Telephone nearby.

To test the efficacy of the advertisement I showed it to my six-year-old nephew and said to him. "Bob, tell me about that picture." His reply was, "The man can't fix the automobile and he is going to telephone for help."

It strikes me that an advertisement which is as plain as that is a pretty clever piece of work, and I thought you might like to hear of this little incident.

Sincerely,
Albany Automobile Dealers' Ass'n.
By C. A. Simmons, Manager.

New York Telephone Athletic Club

THE New York Telephone Athletic Club will hold its first Annual Entertainment and Informal Dance at the Murray Hill Lyceum, 34th Street and Lexington Avenue, Manhattan, on Thursday evening, March 27, at 8:15 o'clock

Although this is the first dance that the Club has undertaken, its members are confident that it will be as successful as the annual outings and dinners held for the past two years and hope that a large number of employees will take advantage of this opportunity to meet co-workers and their families.

Tickets including wardrobe and admitting lady and gentleman are fifty cents each; extra ladies' tickets, twenty-five cents. They may be obtained from any of the following committee: J. C. Axtmann, H. S. Kelly, 18 Cortlandt St., Manhattan; H. C. Montgomery, 547 Clinton Ave., Brooklyn; G. I. Flynn, 281 Washington St., Newark.

In order to restrict the occasion to members of the Club and their friends, no tickets will be sold at the door unless purchasers are introduced by members.

As announced in a previous issue, this organization is anxious to secure members in all departments throughout the entire territory.

Why should there not be local athletic clubs affiliated with the main organization in New York, just as there are sectional branches of the Telephone Society of New York affiliated with the main body in Manhattan?

This would stimulate local interest in athletics, and the high score men could have one grand meet at some convenient point and test their individual prowess.

The Club would be glad to receive suggestions along this line.

Telephone and Grand Opera

"Otello" was sung in the Metropolitan Opera House superbly, as it always is under Toscanini's masterful baton, but with Antonio Scotti as the Iago, instead of Pasquale Amato, who had succumbed to a sudden indisposition.—*Daily newspaper.*

Thereby hangs a tale. The seemingly simple matter of substituting one artist for another was by no means all that was involved as the result of the unfortunate illness of Sig. Amato; his substitute had to have a costume. Sig. Scotti's costume was in Boston, where he had sung the part on the previous Wednesday and would sing it again on the following Monday. Sig. Amato's illness was reported at 1.30 p. m. and Boston was five hours away by fastest train. Without his costume, how could Scotti sing?

But nobody worried. The Metropolitan Opera House management called up Boston by long distance telephone and at 1.40 a messenger was leisurely making for the 2 o'clock train out of Boston, with the necessary wardrobe.

This was fortunate, because that night "Otello" probably had its last performance in New York this season.

The Telephone Voice

You cannot see her when she smiles,
Nor notice how she time beguiles,
Yet you rejoice—
You hear her voice!
Like sylvan zephyrs o'er the lea,
Soft, thrilling notes of melody
That never tire
Pulse on the wire.
Caressing to the harassed ear,
Those dulcet strains are sweet to hear
And though you're sad
They make you glad.
You dream of music and the muse,
Of harps, and song, and roseate hues,
And angels fair
That float in air.
But dreaming ends and so you groan,
That voice is not for you alone—
'Tis sweet to all
At every call.

—EDMUND CECIL HUBBELL, *N. Y. Press.*

Digitized by Google

Telephone Service in the Fire Insurance Business

C. F. SHALLCROSS, Manager, Royal Insurance Co., Ltd., of England
GEORGE A. CLARKE, State Agent, Home Insurance Co., of New York
J. C. FORSYTH, Chief Inspector, Electrical Bureau, N. Y. Board of Fire Underwriters

1.—The Business of a Foreign Insurance Agency

To the Editor of *The* TELEPHONE REVIEW:

YOU have asked for some comments on "The Telephone and its Relation to the Business of a Fire Insurance Company." No doubt you selected for the inquiry the Royal Insurance Co., Ltd., because it is the largest fire insurance company in existence, and, having entered the United States in 1851, has witnessed the beginning of the telephone and the growth of its wonderful service to the present almost superhuman efficiency.

The hands of the electric clocks throughout this office point to 9.00 a. m.; by which time the mail from North, South, East and West has been opened and distributed.

The first call is from an up-town Branch Manager who has a broker in his office offering a $100,000 line on a building for which a "binder" or temporary policy must be given at once. "Hold the wire a minute" says the underwriter (5 or 6 miles away downtown) who quickly looks up one of the numerous maps on which every building in the city is shown, drawn to scale and colored and marked in a manner which indicates to the trained eye every important detail of building construction. Another file contains a card showing the rate at which the company will write the insurance. In sixty seconds the up-town man has authority to bind the $100,000 line, at the given rate, and in two minutes more the broker up-town is out on the street with his client's interests fully protected by the slip of paper in his broker's pocket.

By this time a call from the Jersey home of one of the company's officers announces that the Philadelphia office has telephoned him that it has an important proposition on hand: the officer will catch a limited train in twenty minutes, save the half day he would have lost by coming to the office at first, and reach it by 3.15 p. m.

The Loss Department has run through its mail; and amongst scores of fires reported is one damaging a stock of gloves at Gloversville, N. Y. The only chance for salvage is to get at the wet stock immediately. The itinerary of the company's "Special Agent" for the district shows that he would be in Albany, N. Y., until 10 o'clock that morning. No time to telegraph; but "Central" is asked to hurry this important call as much as possible, and in twenty minutes the man in Albany—his grip always ready packed—is headed for the New York Central station.

By this time the Agency Department has discovered among the "Daily Reports" (the pro forma policies on which the company's agents throughout the country send in details of the risks they, in their capacity as agents, have accepted) a $10,000 line on a risk on which the company already has as much insurance as it wants. The point is: Can the agent reinsure this overline with some other company? If not, other arrangements must be made to safeguard the company's interests. There are several questions to be asked and answered by both parties and the company cannot afford to lose any time by writing and thereby run the risk of the property burning meantime. So "Long Distance" comes to the rescue again and in half an hour the matter is adjusted to the satisfaction of all concerned.

It is now 10 o'clock and all the company's trunk wires are carrying, in or out, messages from or to brokers, agents, clients, loss adjusters inquiring about policies, payments, rates, losses—all promptly handled through one or other of the numerous office extensions located where any conceivable inquiry will receive the requisite immediate attention or whence an inquiry can be made from the office with the least loss of time.

So it goes all day and such, in brief, is the telephone's part in the operations of a large fire insurance company doing business through thousands of agents and brokers in thousands of cities, towns and villages all over the country, with sub-divisions of operating departments in touch with each other by the telephone system.

A man buys somebody's shaving soap because, as he walks into the drugstore he recalls the ubiquitous pictorial advertisement of another man who is made to look happy while shaving (there never was such a man!); and the thousands of young ladies who, to the layman, make the telephone system what it is, have thrust upon them in every street-car and daily paper the advantages of all those remarkable and various accessories which go to make up the well-turned-out American woman. But the advertising of a well-managed fire insurance company consists mainly in "square dealing" and "service." With the former the telephone has nothing to do. But, in these days, the well-managed fire insurance company advertises itself by "service," a most important adjunct to which is the telephone. The busy insurance broker, agent or policy-holder quickly learns where he can get what he wants, or wants to know, through the medium of a well-equipped office telephone service; and the continual increase in the number of trunk wires and message contracts which mark the increase in the business of this, a typical well-managed fire insurance company, are the results of the advertising which "service," including particularly telephone service, is giving this company.

While, perhaps, hardly in the line of the foregoing reflections it is interesting to note that, in another direction, the telephone has made itself felt by the fire insurance company. One of the serious problems of the business is the underwriting of the modern skyscraper with its stocks of merchandise hundreds of feet above the side-walk and practically beyond the control of any fire department. Without the telephone there would have been no skyscrapers; for not only would men be unable to spend the time going to upper floors to transact business, but if they had to make, in person, even one-fiftieth of the inquiries for which the telephone serves, the requisite number of elevators would have restricted to impossible smallness the space available for office and store purposes and would have made rents in such buildings prohibitive.

I cannot close this letter, without expressing my high appreciation of the "service" which, in its turn, the telephone company renders to its subscribers. At its head are the organizing and engineering brains of a wonderful institution; but at the end of the wire is the "operator" against whom impatient criticism is usually unwarranted, and upon whose intelligence, quickness and unfailing courtesy the well-managed fire insurance company must and does rely for so much of its success.

C. F. SHALLCROSS.
Manager.

Digitized by Google

2.—The Business of a Domestic Fire Insurance Company

To the Editor of *The* TELEPHONE REVIEW:

YOU recently asked me to prepare an article on the use of the telephone in the fire insurance field.

The Home Insurance Company of New York was among the first insurance companies to contract for service—more than twenty-six years ago, when we had a single telephone placed in our office then located at No. 119 Broadway, New York, but the telephone was seldom used, either for incoming or outgoing calls. The difference in these twenty-six years is that we now have a private branch exchange switchboard equipped with seven trunk lines connected to your John Central Office and twenty-five desk telephones placed throughout our office at 56 Cedar Street, New York City. Our local calls aggregate about 550 each business day, or about 165,000 annually.

When one stops to think of the changes that have taken place in the handling of business and considers what is the greatest labor-saver, the thing that stands out above all others is the telephone, and upon reflection we all wonder what we would do without such service. Since the telephone was installed in our office in 1886 our premium income has increased from $3,500,000 to $13,000,000 annually, and there is no doubt that the telephone has been of great assistance in building up this large business. What it would mean to transact the business we do over the telephone each day without such service is incomprehensible. Often we are called over the telephone by an assured who says that he has removed his property on that day to a new location, and asks what he must do about his insurance. Generally, the risk is at once accepted at the new location, pending receipt of policy for endorsement. Hardly a day passes that we do not receive several notices of losses over the telephone, which fact enables us to save at least a day in having a representative visit the premises, adjust the loss to the property owner's satisfaction without delay, and in a good many cases saving property that would be otherwise destroyed by being able to advise the assured what to do to protect his property. It would be a long story to tell of the many cases where the telephone was the instrument used in calling the fire department, and impossible to estimate the amount of money saved to the country and the insurance companies by being able to notify the firemen at once. When it is remembered that the losses in the United States amount to over $250,000,000 yearly, we cannot help wishing that the telephones were so arranged that when a fire starts a signal would be flashed to the nearest fire department without having to wait for some one to call the operator. With apologies to one of our cartoonists, the telephone is the thing that has put "sure" in insurance.

It would be hard to realize how much important insurance business is transacted over the telephone, and the amount of labor saved, in handling the business that cannot be attended to in this manner, by being able to make appointments that would take at least a day to arrange.

A great amount of the best classes of business we receive which otherwise would reach other channels is accepted over the telephone and a binder mailed, or handed to a messenger afterwards, for it so often happens that the amount of insurance wanted is not known by the parties placing the insurance until late in the afternoon just before closing, and the property owner's representative does not have time to reach our office, but has the insurance accepted over the telephone, pending receipt of binder or policy. If it were not for the telephone by which he could call one of our representatives, or a representative of some other company, the property owner would no doubt have a restless night, and run the chances of a heavy financial loss.

Not only is the above the case at our Home Office, but as the large majority of our nine thousand local agents have telephones in their offices and homes—either at one place or both—it will be seen what an important factor the telephone is in the insurance business to-day. These local agents can reach our State Agents for their territory by telephone, and be able to transact business in a few minutes that would take considerable time and expense if a visit had to be made by either party. To think of the property owners and agents for other companies who give us business who can and do place their lines over the telephone with the Home Office, or one of our representatives would even stagger the Telephone Company if the amount so received were known. Frankly, I do not believe that we could do without telephone service, and the more it is improved, the more valuable it becomes.

The telephone is used by all of our field force, even when other means would seem cheaper, for the field man at once secures his party, and is enabled to discuss his subject, making such explanations as may be necessary and settling the matter forthwith. Very often one of our field men is informed when he reaches a risk that he cannot make an inspection of the premises unless he presents a pass from the party placing the insurance, and not having such a pass is required to secure one before inspection can be made. This means another visit. Now, the plant nine times out of ten is in a remote section, requiring considerable time for our representative to reach, which on account of plans already made would delay the inspection at least a day and usually a longer time. Here again the telephone plays an important part, obviating delayed inspection, which might result in a loss to the insurance company, or would at least disarrange plans. We simply go to the telephone, and without loss of time arrangements are made for the immediate inspection of the property.

Not long since one of our state agents was confined to his house on account of a broken ankle at a time when he was very anxious to be among the agents in his field. He had a telephone placed conveniently near him, and transacted the business satisfactorily through that service.

The number of calls used each day is an indication of the value of the assistance we are receiving from present day up-to-date service. It is a frequent thing to talk over the telephone to our Chicago office and others nearer by; and quite often we converse with Kansas City, St. Louis and Nashville. Imagine the time and money saved in such cases.

We insurance men fully recognize and appreciate the wonderful progress that is being made by the American Telephone and Telegraph Company and its Associated Companies. The publicity feature given the Bell industry through the medium of magazines, newspapers and circular advertising, provides much interesting and illuminating data, and is in its way undoubtedly blazing the trail further and further towards the goal of the Pacific Coast, whereby we may be able to talk from New York to our San Francisco office.

Long life to the Bell Telephone, and may it continue to improve as it has in the past.

GEORGE A. CLARKE,
State Agent.

Digitized by Google

3.—The Business of the New York Board of Fire Underwriters

To the Editor of *The* TELEPHONE REVIEW.

IN compliance with your request for an article on the telephone, I recall that, when the telephone was first installed on a commercial basis, it was regarded by the majority of business firms as a luxury, or at most as a convenience. Gradually its use extended until every concern of any size was employing at least one telephone. As the number of users grew, the calls for particular firms likewise increased until additional lines became a necessity. Gradually the pressure of business became greater until the time required by the individual called in going from his desk to the location of the telephone became too great, and the idea of extensions to one or more convenient points was adopted.

This represents the situation in the office with which I have been connected for nearly twenty-two years. First one line was installed, then two, then three lines, and next came two extensions until now we have six independent lines in service with twelve extensions. The electrical inspection force has grown in that time from three to fifty-two employees. An inspector in following his regular line of work visits a building, and if the work inspected is satisfactory, he so reports the following day at the office. The certificate is issued and mailed to the contractor, who receives it the following day, or two days, after the inspection was made. The contractor then forwards the certificate by mail or by messenger to the electrical supplying company, after which the current is turned on, so that under ordinary conditions at least three days, and often more, elapse between the time inspection is made and service from the illuminating company is rendered. In the meantime the customer waited. But here comes the telephone, that magical transmitter of electrical waves which carries the human voice with such wonderful accuracy. When an inspector finds that a customer is in real need of prompt service, he simply calls this office, states in a few words the situation, and from this office word is sent to the supplying company, and in perhaps half an hour after the inspection is made, the customer is rejoicing in his ability to lighten up the dark places and start the wheels of his factory turning, and in giving employment perhaps to hundreds of waiting employees. It quite frequently happens that a place of business, such as a millinery shop, a hat store, shoe or notion, advertises in advance that on a certain day it will have a grand opening. The contractor may be behind in his work or may have neglected to file a report in our office asking for inspection, or may not have advised us of the importance of prompt service. As the evening of the day approaches on which the opening is to take place, the tenant becomes more and more nervous and worried until finally, in much alarm, he telephones our office. The matter is at once looked up while the line is being held, and the information given is most likely to the effect that we have no report from our inspector, and that nothing can be done unless the inspector in whose district the building is located should get our office on the telephone, in which case we will do all that we can for him. Our inspectors do frequently call up to make inquiries, and they are told that Mr. Jones or Mrs. Smith has advertised an opening tonight, but the company has not turned on the current. If possible, the inspector goes out of his way to make the examination requested, and Mr. Jones or Mrs. Smith, although ten or fifteen miles away from our office, welcomes the inspector who looks over the work and, through the channel first described, is able to set the wheels of business going and satisfy everybody concerned. How could such things be done without the telephone?

One day recently my watch stopped, I wound it, shook it, pushed its balance wheel and tried in every way to make the timepiece respond, but there was "nothing doing." I took it to the watchmaker, and he soon found that a little cog or tooth on one of the wheels was broken. There were hundreds of these little cogs or teeth in the watch, but an accident to one of them put the entire mechanism out of commission. This is the point I want to make. The telephone system is one of the many cogs or teeth in our business life, and if it became disabled for any reason, it would be very difficult if not almost impossible to carry on our business affairs. This much is certain, that the amount of business done would be so reduced that it would be scarcely recognizable.

Nor is this thought to be confined to New York City. While the swirling eddies of business immediately about us occupy the principal part of our mind and time, yet we must not lose sight of the larger whirlpool encircling the entire country with its multitude of eddies scattered from Maine to California, and from the Great Lakes to the Gulf.

As representing the fire insurance interests, I was fortunate in being permitted to make a thorough examination of the various telephone centrals in New York City, as well as the long distance equipment of the American Telephone and Telegraph Co. It is impossible for anyone not having this privilege, or not directly associated with that work, to have any comprehension of the magnitude of the necessary equipment or any conception of what takes place when the subscriber innocently lifts the receiver from his telephone. There are hundreds of thousands of wires connecting to delicate devices, each one of which has its own peculiar function to perform, and all working in perfect harmony. The complex nature of the service, the compact form necessary for rapid operation, the elimination of all unnecessary features, the protection required against possible interruption of service from all probable causes, have been fully recognized and provided for by the telephone engineers. My inspection showed that the American Telephone and Telegraph Company and the New York Telephone Company had not only done every thing suggested by the Board of Fire Underwriters in the protection of their properties, but that they had gone beyond our requirements in safeguarding the exchanges and the employees. The same care and attention have, I understand, been given to the telephone centrals in all other business centres. Now all this simply means "readiness for service." However well equipped the local telephone centrals may be, and however necessary it may become for Mr. A. in New York to get in communication with Mr. B. in Chicago or Denver, it would be impossible without the inter-connecting lines between these cities. These radiating lines from city to city are great highways of intelligence over which are transmitted information of incalculable value. They might be considered the nerves of the business world, constantly pulsating with electrical life, and responding to the touch of every mind. The great railway lines of the country are the carriers of commerce, the highways over which are transported the products of one community to another, and thereby satisfy the need of the people. The telephone systems with their inter-connecting lines serve the same end in the transmission of the thought, intelligence and desires of the country.

J. C. FORSYTH,
Chief Inspector, Electrical Bureau.

Digitized by Google

"The Plant Man on the Job"—or a Day

An Attempt to Picture the Different Grades of Work that Must be Done to Connect a Subscriber's Telephone to the Company's System—and also Showing Something of the Versatile Character and Ability of the "Man on the Job."

NO. 1. FIRST STEP IN LAYING AN UNDERGROUND CABLE. BREAKING OUT ASPHALT PAVEMENT.

NO. 3. LAYING MULTIPLE DUCT TILE SUBWAY THROUGH WHICH THE CABLES WILL BE RUN.

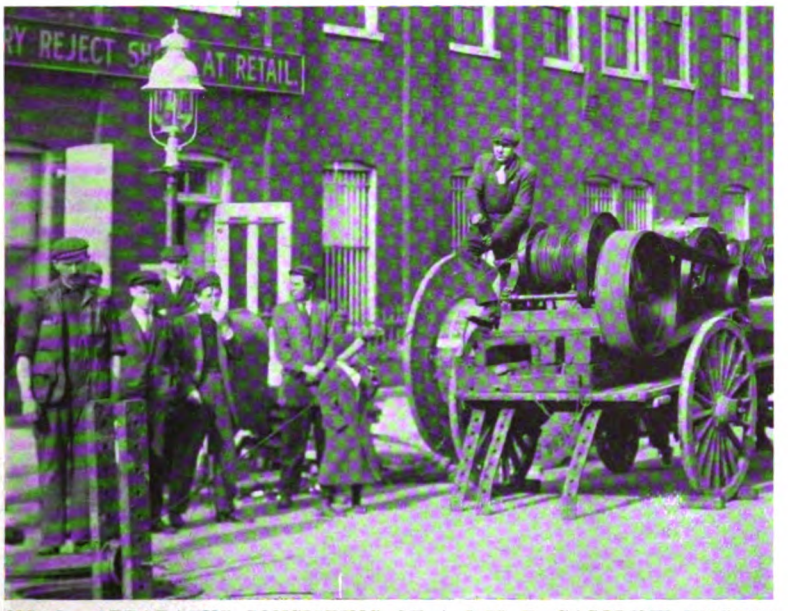
NO. 2. OPENING UP THE TRENCH.

NO. 4. BACKFILLING THE TRENCH, AFTER WHICH THE PAVEMENT IS RELAID OR ASPHALTED AS GOOD AS NEW.

Digitized by Google

with the Plant Department on Long Island

While this "Man on the Job" Talks but Little of Himself, He Possesses a Fund of Information About His Business, and His Ingenuity Constantly Contributes to the Advancement of the Art. His Experiences Would Make Many Good "Feature Stories."



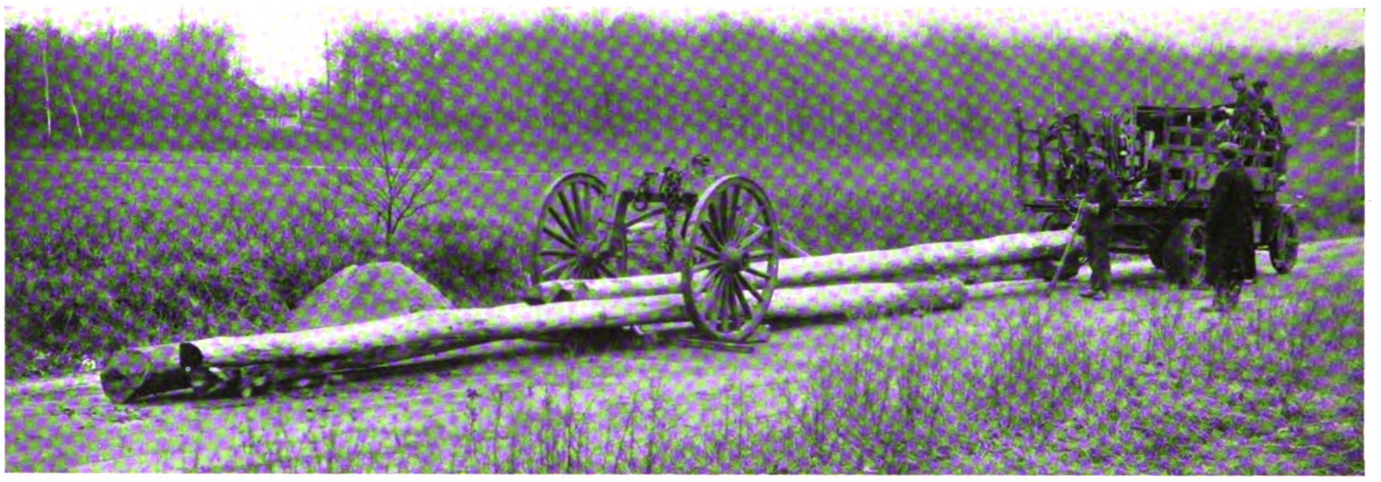
NO. 5. APPARATUS CONSISTING OF A 5 H. P. GASOLINE ENGINE BELTED TO WINCH AND MOUNTED ON TRUCK, WHICH PULLS THE CABLES THROUGH THE DUCTS.

NO. 6. FEEDING CABLE INTO THE DUCT AS IT IS BEING PULLED THROUGH SUBWAY FROM THE OTHER END.

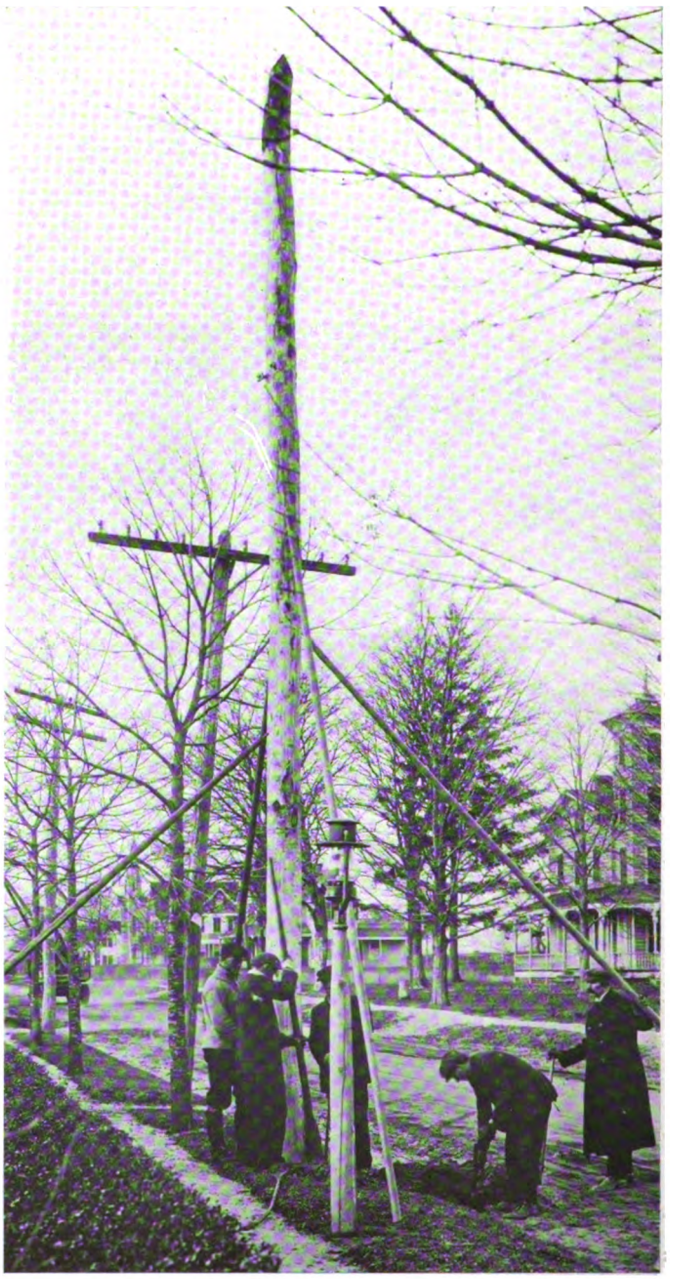
NOS. 7 AND 8. A BIG JOB. RECONSTRUCTING A MANHOLE TO ACCOMMODATE ADDITIONAL LOADING POTS.

Old Hole was Standard 8'x3½'—4 Pots Being Buried Under Its Side Walls. This is the First Loading Hole in Brooklyn on Cables Crossing East River at Pier 33. The New Hole is 15'x8'x11' and Consists of Two Compartments, Separated by Iron Grating, the Lower to Accommodate 14 98-Pair Loading Pots, the Upper for Racking and Splicing Cables. When the Work is Finished, a Manhole is as Neat a Looking Place as One Might Care to See.

Digitized by Google



NO. 9. FIRST STEP IN BUILDING AN AERIAL CABLE LINE. MOTOR TRUCK AND TRAILER SNAKING POLES TO THEIR RESPECTIVE HOLES.



NOS. 10 AND 11. ERECTING POLES WITH POWER DERRICK ON MOTOR TRUCK, AND GUIDING THE BIG POLE BY PIKES. THE MOTOR TRUCK SHOWN IN PICTURE NO. 10 IS THE SAME AS THAT ON THE COVER.

Digitized by Google

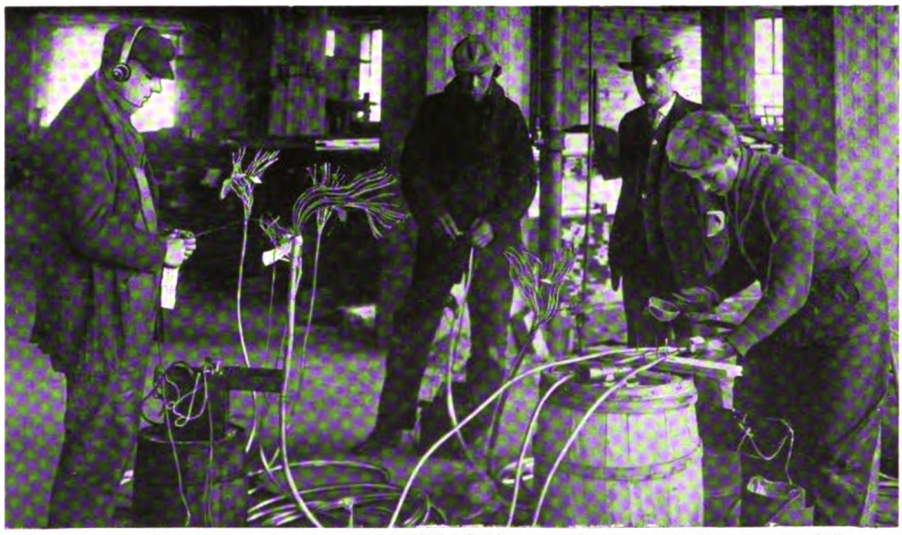
NO. 13. MAKING UP THE END OF AN AERIAL CABLE FOR ATTACHMENT TO DRAWING-IN LINE.

NO. 12. SHOWING THE GENERAL SET UP OF REELS, APPARATUS, ETC. END OF AERIAL CABLE ATTACHED TO DRAWING-IN LINE.

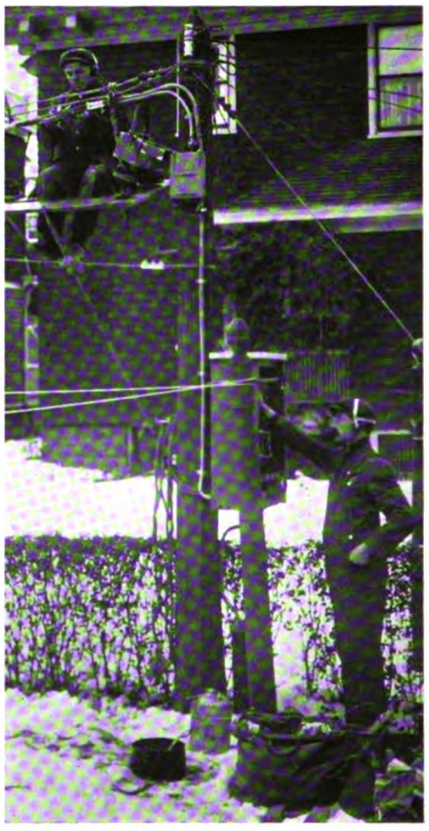
NO. 14. STARTING THE PULL; STRAIGHTENING END TO AVOID RIPPING RINGS OFF STRAND.

NO. 15. THE CABLE NOW DRAWN INTO POSITION; RELEASING DRAWING-IN LINE FROM CABLE.

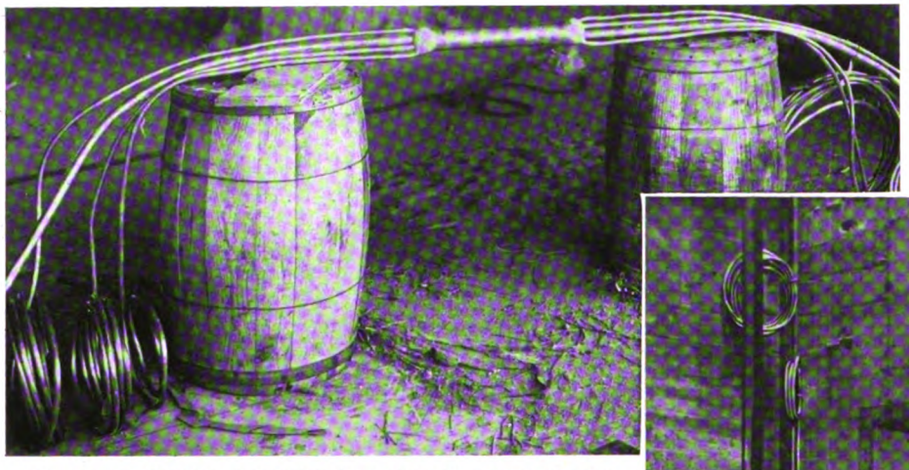
Digitized by Google



NO. 18. CABLES FOR LARGE BUILDINGS HAVE BRANCHES TO EACH FLOOR, BUILDING UP HOUSE CABLE, RISER AND BRANCHES PREPARATORY TO PLACING IN POSITION.

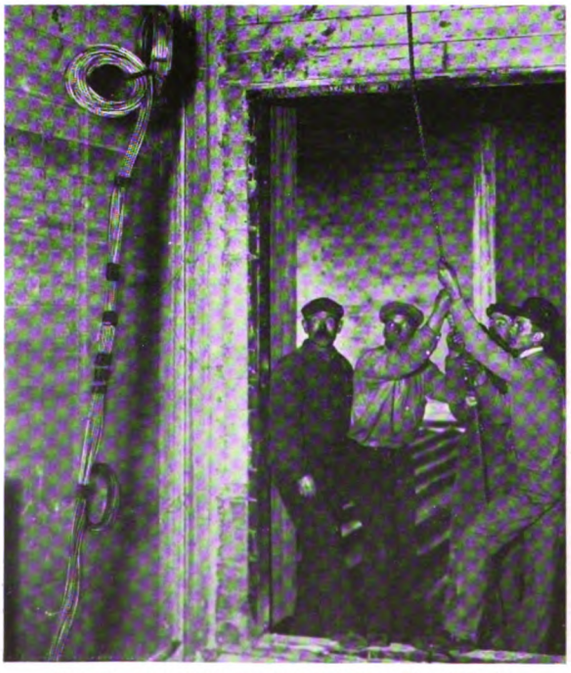


NO. 16. SPLICING AN AERIAL CABLE, USING A HANGING PLATFORM.



NO. 19. SHOWING BRANCHES SPLICED INTO RISER READY FOR PLACING.

NO. 21. RISER PLACED AND CLAMPED INTO POSITION; BRANCHES TO BE RUN TO LOCATION OF TERMINALS ON THE VARIOUS FLOORS.

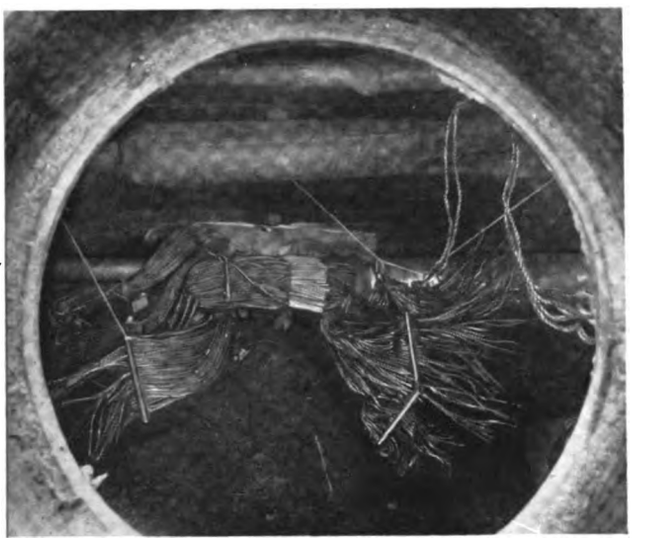


NO. 20. PULLING RISER AND BRANCHES INTO POSITION IN ELEVATOR SHAFT.

NO. 17. SPLICING AN AERIAL CABLE, USING A LADDER SUPPORTED FROM THE MESSENGER STRAND.

Digitized by Google

NO. 22. MAKING FINAL BALANCE TEST ON A 600-PAIR, 22 GAUGE DUPLEX CABLE. SCENE ABOVE GROUND.



NO. 23. A SCENE BELOW GROUND.

A Rapidly Growing Area 4 Miles from a Central Office, and Within Which the Establishment of a Central Office was Scheduled in About 3 Years, Required Additional Facilities. A 600-Pair, 22 Gauge Duplex Cable was Run at this Time, Spliced and Stubbed as a 600-Pair. Until New Office is Opened, Each Pair of a Quad Will Be Used as the Side of a Circuit. This Cable Will Be Cut at the Boundary When the New Office is Opened, Giving a 600-Pair Cable Out of Each Office and Utilizing the Subway Duct to Its Full Capacity.

NO. 24. A CABLE TROUBLE.

This is a 600-Pair 22 Gauge Cable Laid in Creosoted Wood Duct Temporarily Under a Railroad During Grade Crossing Elimination Work. The Railroad Gang in Excavating Uncovered the Wood Duct and Started to Saw It Out of Their Way. The Saw Marks on the Cable are Clearly Discernible.

NO. 25. A JOB THAT IS INTERESTING BECAUSE OF ITS COMPARATIVE RARITY.

A 300-Pair Stub Changed from One Set of Conductors to Another in a 600-Pair Cable. It was Necessary to Keep the Splice Soft by Means of a Hot Air Blower While Doing the Work, to Avoid Damage to the Insulation.

NO. 26. THE AERIAL CABLE IS NOW COMPLETED, THE DROP WIRES ARE RECONCENTRATED AND THE OLD OPEN WIRE LINES ARE REMOVED.

Digitized by Google

NO. 27. ASSIGNING CALL NUMBER AND CABLE CONDUCTORS TO A NEW SUBSCRIBER'S LINE AND WRITING THE CONTRACT ORDER IN MANIFOLD FOR USE BY THE VARIOUS DEPARTMENTS. IN ORDER TO SAVE TIME IN INSTALLING SERVICE, A NIGHT FORCE IS MAINTAINED.

NO. 28. THE CLERICAL AND SUPERVISING WORK OF THE INSTRUMENT INSTALLATION FORCE.

NO. 29. PREPARING STATION APPARATUS AND MATERIAL FOR QUICK DELIVERY TO THE SUBSCRIBER'S PREMISES.

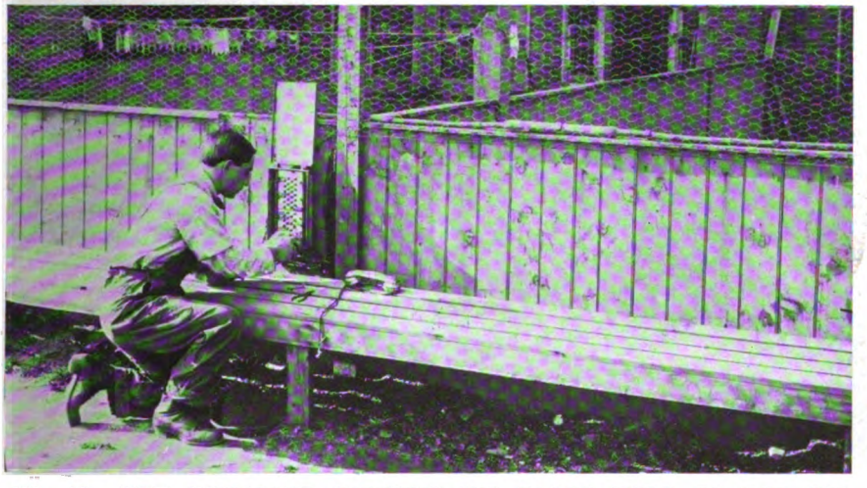
Digitized by Google

NO. 30. THE "MOSQUITO FLEET" READY TO TAKE STATION APPARATUS AND MATERIAL TO SUBSCRIBERS' PREMISES WITHOUT DELAY.

Each Delivery Wagon Averages from 65 to 70 Visits a Day Covering Between 60 and 70 Miles.

NO. 31. DELIVERING INSTRUMENT AND MATERIAL TO SUBSCRIBER'S HOUSE.

NO. 32. INSTALLER ARRIVING ON THE JOB, READY FOR WORK.

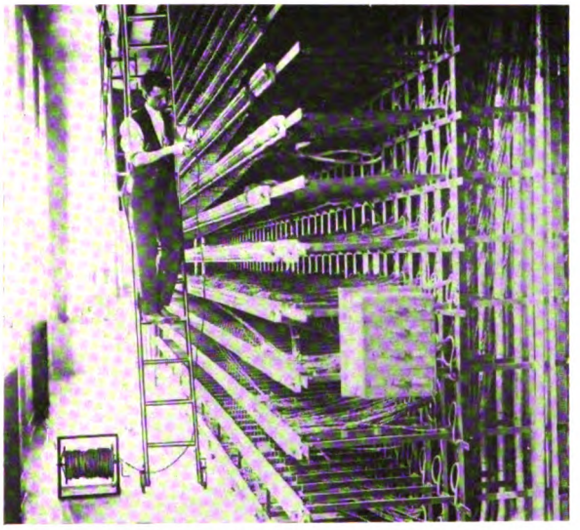


NO. 33. THE INSTALLER RUNNING HIS BLOCK WIRE TO THE SUBSCRIBER'S TELEPHONE FROM A DIRECT CONNECTED BLOCK TERMINAL.

NO. 34. IN DETACHED HOUSE DISTRICTS.

Connection Would Have Been Made to Cable Box Placed on Cement Poles on Rear Property Line. These Poles Are Used Jointly by the Electric Light and Telephone Companies. The Cable Boxes Are Placed Low on the Pole So As To Be Accessible to Installers, Troublemen, etc., Without the Use of Ladders.

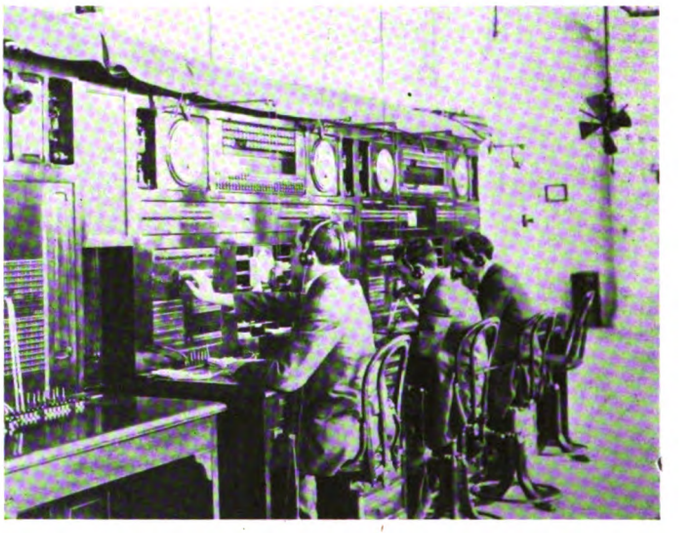
Digitized by Google



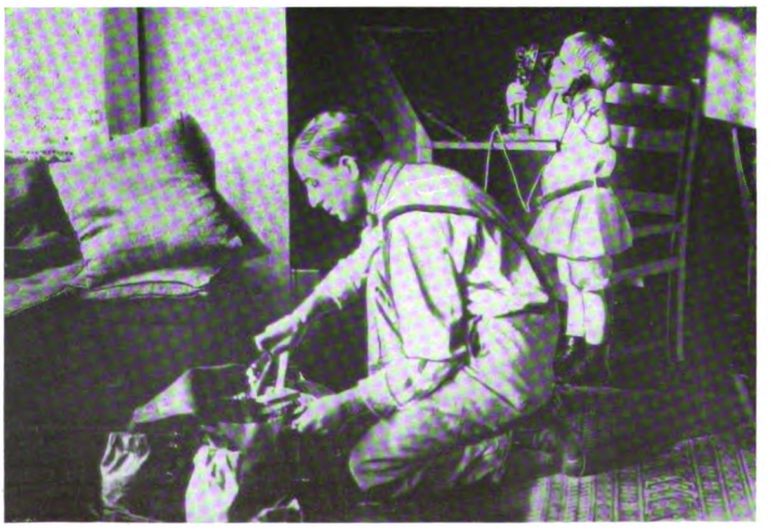
NO. 35. CROSS-CONNECTING THE WIRE AT MAIN DISTRIBUTING FRAME.
This is the Connecting Link Between the Central Office and the Outside World, as Represented by the Cable Boxes Shown in Nos. 33 and 34.

NO. 36. PLACING THE INSTRUMENT IN THE SUBSCRIBER'S HOME.

NO. 37. INSTALLER GETTING O. K. TEST FROM THE WIRE CHIEF.



NO. 38. THE OTHER END OF THE LINE, THE WIRE CHIEF TESTING AND O. K.-ING THE LINE.



NO. 39. THE "MAN ON THE JOB" PREPARING TO DEPART; THE SUBSCRIBER TESTS THE SERVICE.

NO. 40. AS DOCTOR JOHNSON ONCE SAID OF A PLEASANT MEETING, "SIR! WE HAD A FINE TALK."

Digitized by Google

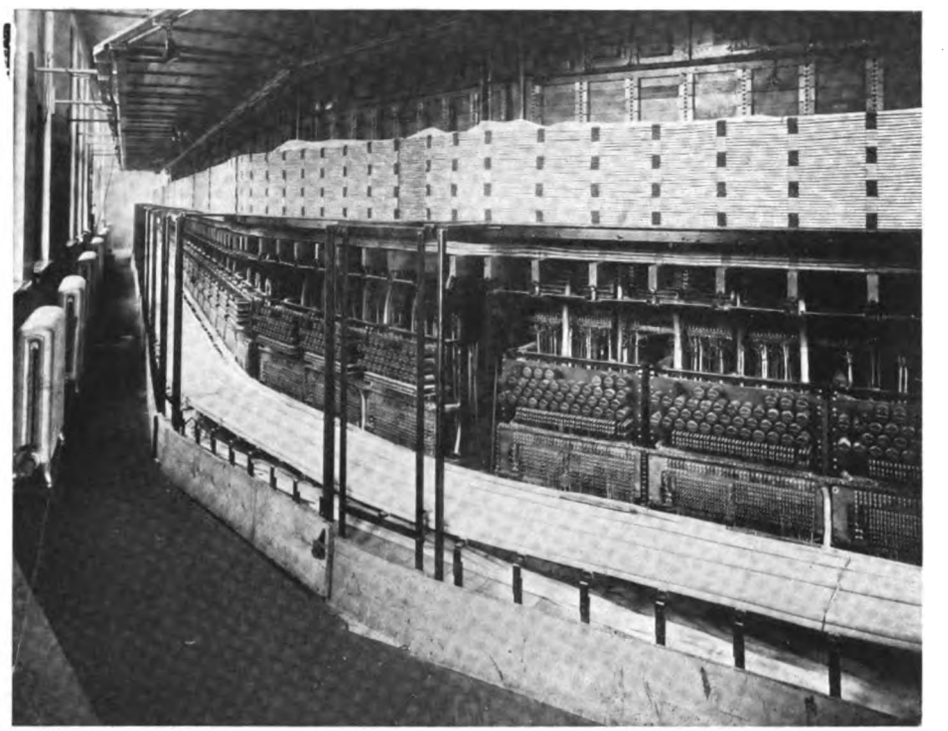
The New Tupper Exchange, Buffalo

Old Tupper and Bryant Consolidated in New Exchange

THE new Tupper Exchange in Buffalo, which has been described in previous issues of this magazine, formally took its place among the modern and model telephone buildings of the country at 11:30 o'clock Saturday night, February 15, when, in the words of the *Buffalo Express* of the next day, it "began to receive calls and the old exchange went dark."

The new switchboard has a total capacity of 10,500 lines. Initial equipment is for 5,600 lines and includes 62-A positions and 11-B positions. The "cut over" from the old to the new Tupper affected 2,649 lines and 5,074 stations One week later, on the night of February 22, the old Bryant subscribers were transferred to the new Tupper Exchange, affecting 1,773 lines and 3,475 stations.

From the cable vault to the main switchboard, including every piece of apparatus and equipment, there is no finer installation, nor is there an exhibition of more perfect workmanship in existence. This is the pronouncement of Mr. G. C. Allen, General Superintendent of Plant, who, with other officials of the Company, was present at the first "cut over." The forces of the Plant Department to whom the credit for the work is due, and those who planned and otherwise assisted, may well feel proud of their achievement.



BUFFALO, ONE OF THE FINEST EQUIPMENTS IN USE. NEW TUPPER EXCHANGE
View at Rear of Subscriber Switchboard Showing Cables and Apparatus Associated with the Connecting Cords.

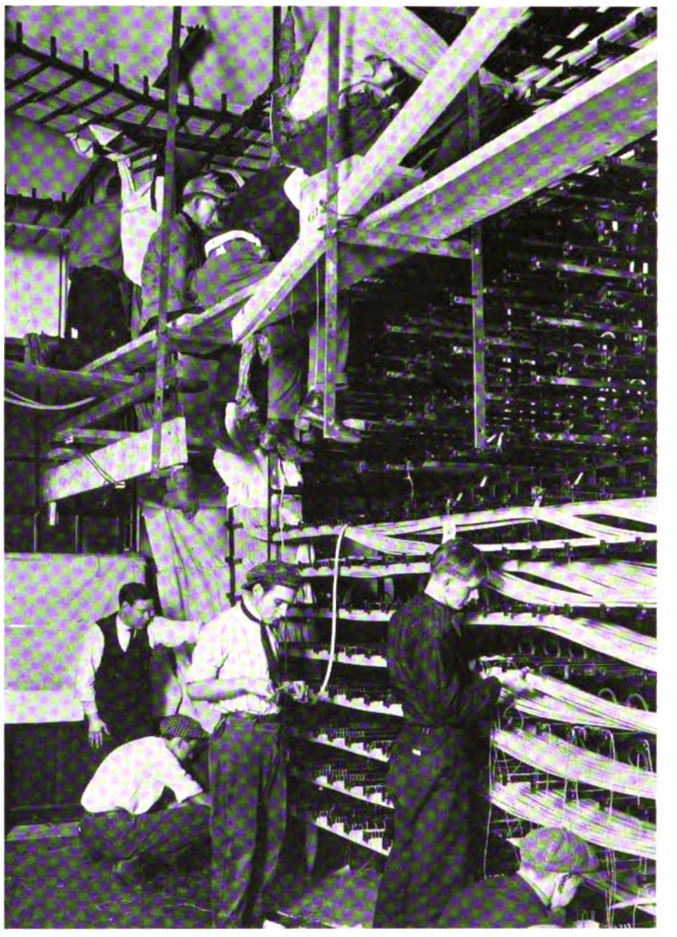
NEW TUPPER EXCHANGE CABLE VAULT, BUFFALO.

The pictures on this and the following page give an idea of the character of some of the work. The cable vault, in particular, is a work of art of its kind. It is also worth while mentioning the large, light and well-ventilated operating room. The picture of the back of the switchboard clearly indicates the brightness and cheerfulness of these quarters. An uninitiated person will wonder how the seeming interminable tangle of wires would ever be straightened out and each separate strand of copper find its proper place, but on February 15 all was ready and each one carried its message.

The newspapers of Buffalo were given a look-in at both the new Tupper Building and the new Telephone Building and were so interested that they took numerous pictures, which were afterwards reproduced. The picture from Seneca in the new Telephone Building will give an idea of the extent to which the work has progressed there.

Digitized by Google

BETWEEN THE LINE RELAY RACK AND VERTICAL INTERMEDIATE DISTRIBUTING FRAME.
Preparing the Ends of the Cables to Be Connected to Terminal Strips. At New Tupper.



SEWING SWITCHBOARD CABLES AT MAIN DISTRIBUTING FRAME. NEW SENECA CENTRAL OFFICE, BUFFALO.

GROUP OF WESTERN DIVISION PLANT AND TRAFFIC DEPARTMENT OFFICIALS IN THE NEW TUPPER EXCHANGE, BUFFALO, THE AFTERNOON OF THE FIRST CUT-OVER, FEBRUARY 15, 1913.

Reading from Left to Right: F. E. Martin, Chief Clerk to Division Traffic Supt.; J. L. Parker, Manager Traffic Inspection; E. J. Mesmer, Tupper Wire Chief; S. W. Bell, District Equipment Supt.; H. A. Knoll, District Foreman, Buffalo; C. H. Thomas, Division Supt. Buildings and Supplies; V. C. Mott, Division Supt. Cable Construction; J. J. Welch, Division Traffic Supt.; P. O. Jacobs, Division Plant Supt.; G. C. Allen, General Supt. of Plant; H. C. Carpenter, Engineer; C. P. Rablin, Buffalo District Traffic Chief; C. W. Little, Buffalo Suburban District Traffic Chief; J. W. Banks, Division Equipment Supt.; G. M. Beal, Division Traffic Engineer; T. J. Kirwan, Supervising Foreman Splicers.

Digitized by Google

The New York Custom-House

The Handling of Its Enormous Business Simplified by the Telephone

THERE is probably no branch of United States government business that is more important and requires more careful supervision and attention to detail than the Customs service. With the great amount of revenue pouring in daily from the rigid enforcement of our tariff laws, it is easy to see that the Custom-House and its branches must be run under an organization which reaches a high degree of efficiency.

A Well Managed Building

Let us pay a visit to the New York Custom-House.

The Reason Why

Instantly the secret of this success in organization and efficiency flashes across our minds. For there is the equipment which goes with every well managed building and business,—the telephone switchboard, and it is a busy one, too, one of the busiest in the city of New York. Busy not only through regular office hours but every hour of the day and night.

To be sure, we noticed one or more telephones in every office we had just passed through, but that is a matter of course. It would hardly seem natural to see a desk without a telephone. It is "as familiar as the inkwell or blotter" used to be,—more so, in this day of fountain pens.

It is always fascinating to watch deft telephone operators as they carry on their work. Busy as they are in the Custom-House, they seem capable of carrying on their work and giving interesting information at the same time.

The telephone switchboard is a three-position one with fifteen pairs of cords for each position. There are 24 trunk lines and 150 extensions connecting the various departments and offices in the building and about eighty extension lines to the Appraiser's Stores (which we will mention later), to the General Post Office, and to nearly every pier in and around New York Harbor at which any vessel from a foreign port discharges passengers or cargo.

As the New York Custom-House is never closed, the telephone service is required at all times, which makes it necessary to keep one or more of the five operators employed on duty continuously. No less than 3,500 calls are made through this switchboard daily.

Ship News

To the left of the switchboard and within easy reach of an operator is something which is not usually found in a telephone office. This is a ship news ticker, and as the chief operator explained, it is of inestimable value in connection with the busy telephone apparatus. Over this ticker via the Western Union telegraph come wireless reports of the arrival or location of vessels coming into port. As these reports are received they are typewritten for the information of the officials concerned. Most important, however, is the fact that anyone connected with the government service has merely to call the telephone operator from his home or office to find out when a vessel is expected to dock or other information. This saves a great amount of time, besides being of the utmost convenience. This service is not intended for the use of the general public except in cases of emergency or great importance when information is gladly furnished.

Organization

Now that we have seen how busy the telephone wires are, let us look briefly at the work the Customs Department does and how it depends so much upon the invaluable telephone.

The entire Customs Department of New York City is under the direction of the Collector of the Port and divided into three main branches, known as the Appraisers', Surveyors' and Collectors' Departments. These dovetail into each other and form one great unit which requires co-operation in the full sense of the word.

Appraisers' Department

As the name implies, the work of the Appraisers' Department consists of fixing the value and duty on imports. The officials of this department are highly trained, and when a vessel arrives samples of her cargo are immediately sent to them for examination. When the variety of goods coming in every day is considered, we are impressed by the fact that the work of appraising is by no means an easy task and requires a great amount of skill and foresight.

Surveyors' Department

From the Appraisers' we turn to the Surveyors' Department which is concerned with the actual delivery of goods from vessel to port. Under this department come various kinds of inspectors, guards, examiners, weighers and numerous other officials and employees. Each man must know exactly what his task is in order to lose no time in confusion and delay.

Collectors' Department

The Collectors' Department deals with the actual collection and adjust-

THE NEW YORK CUSTOM HOUSE.

Digitized by Google

ment of all tariff charges. It handles such matters as entries, protests and appeals, legal affairs, auditing and keeping of records.

Co-operation

Dependent upon each other as they are, how could these departments carry on their work expeditiously were it not for the telephone? Just imagine what would happen if it were necessary to send a messenger every time anyone wished to communicate with someone else either in his department or another. Confusion certainly would reign supreme. One cannot imagine the mass of details carried on daily over the indispensable telephone. Whatever part of the city an official or employee may be in, he can always find a Bell telephone and communicate instantly with the desired party.

The officials and employees would find it irksome if, when there is no work on hand, they were compelled to remain in their offices or at their stations awaiting orders. Instead, they leave word with the telephone operators to call them at their homes or wherever they may go. Thus they are enabled to enjoy leave of absence knowing that they will be promptly informed whenever their services may be required. Also they have the opportunity of calling the operator at any time from anywhere to get full information on matters with which they are concerned. So the telephone is indispensable, not only for the quick transaction of business, but as a valuable aid in giving officials and employees a chance to enjoy their leisure moments with their families or in various kinds of recreation. They can't get far away from a Bell telephone, and wouldn't if they could.

Other Offices and Departments

Besides the regular Customs service there are numerous other government offices and departments which depend upon this telephone equipment for the transaction of their business. Chief among them are the U. S. Revenue Cutter Service, Life Saving Service, Civil Service Commission, Bureau of Animal Industries, Coast Survey, Chief Engineer, Superintendent of Public Buildings and Steamboat Inspection Service. All are directly subordinate to headquarters at Washington. Private wires are maintained for the use of the U. S. Bank Examiners and the Secret Service Departments.

All sorts of contingencies are likely to arise demanding the immediate attention of one of these departments. No time is to be lost and no time is lost, for it is usually simple enough to get the desired party or parties on the telephone.

There is a large amount of suburban and long distance traffic especially with Washington, the Collector of the Port calling the capital frequently.

Customs employees must get in touch frequently with others in different jurisdictions, and in cases of smuggling or the apprehension of other violators of the law, time is the essential element of success. Here the long distance telephone is invaluable.

One might write a book upon the uses and advantages of the Bell telephone in connection with this government service; we have simply tried to reach the high places. The value of this great invention is demonstrated in all kinds of business, and it has become a part and parcel of our every day business and social life.

TELEPHONE SWITCHBOARD, N. Y. CUSTOM HOUSE.

Smiles

A Treat Coming

Son—"Say, mamma, father broke this vase before he went out."

Mother—"My beautiful majolica vase! Wait till he comes back, that's all."

Son—"May I stay up till he does?"—*Fliegende Blätter.*

Proof

Tommy went home one day with a nice new golf ball.

"Look at the lost ball I found on the links, father," he said.

"But you are sure, Tommy," said Mr. Traddles, "that it was a lost ball really?"

"Oh, yes," said the boy, "I saw the man and his caddy looking for it."—*London Opinion.*

A Cheerful Prospect

They had just become engaged.

"What joy it will be," she exclaimed, "for me to share all your griefs and sorrows!"

"But, darling!" he protested; "I have none."

"No," she answered; "but when we are married you will have."—*Ladies' Home Journal.*

Little Brother Speaks

Florence, who was an ardent admirer of her own vocal qualities, had been selected to sing a solo at a chuch entertainment.

The following morning at the breakfast table she remarked to her younger brother:

"Well, I never thought my voice would fill that large hall."

"Neither did I," answered her brother unfeelingly. "I thought it would empty it."—*Lippincott's.*

War Alarm

Little Tommy at the "movies," saw a tribe of Indians painting their faces, and asked his mother the significance of this.

"Indians," his mother answered, "always paint their faces before going on the warpath—before scalping and tomahawking and murdering."

The next evening, after dinner, as the mother entertained in the parlor her daughter's young man, Tommy rushed downstairs wide-eyed with fright.

"Come on, mother," he cried. "Let's get out of this quick! Sister is going on the warpath!"—*San Francisco Chronicle.*

Digitized by Google

Night Order Writing Force

IN THE columns of *The* TELEPHONE REVIEW, we have frequently had our attention called to specific jobs which have been handled in a particularly efficient manner by Installers, Splicers, Linemen, etc., and have been told of the high state of efficiency with which certain clerical forces are working, but nothing has been printed in regard to the Night Order Writing Force of the New York Division Plant Department.

This force works each night against time. The contracts are not received from the Commercial Department until 6 P. M., and all orders must be written and ready for distribution not later than 2:30 A. M., irrespective of the number of contracts which are handled, as the orders must be in the hands of the Central Storeroom by 3 A. M., to permit the apparatus to be assembled and loaded on the delivery wagons, ready to start at 8 A. M. each day.

Just prior to the various issues of the telephone directory, the amount of work is greatly increased. For instance, during the week ending October 19, 3,963 orders were written, 2,388 of which required detailed cable assignments, and a total of 3,324 instruction cards were stamped.

"NIGHT ORDER WRITING FORCE."

On the night of October 18, which was the day after the directory closed, the Commercial Department forwarded 1,034 contracts, the last not being received by the Night Force until 9 o'clock.

On account of the unusually large number of orders it was necessary to make a special delivery at 2:30 and a final delivery at 7:30 A. M. From records which have been kept, we find that the errors, which developed in the orders handled during this particular week, after they had been written and distributed, affected less than ½ of one per cent. of the total orders issued.

This force works alone at night, with little or no contact with the day forces, particularly those to whom their work is distributed, with of course the exception of Mr. J. J. Campion, Cable Record and Order Clerk, who must of necessity keep in touch with them by telephone each night in order to direct and control the work in hand.

O. C. LYON,
Div. Chief Clerk, Plant Dept.

YORK TELEPHONE COMPANY
The Layout of this Booth is an exact Reproduction on a small Scale of a Telephone Operators' Rest Room

N. Y. TELEPHONE CO.'S BOOTH AT WOMAN'S INDUSTRIAL EXHIBITION.

Woman's Industrial Exhibition

THE Second Woman's Industrial Exhibition in America was held at the New Grand Central Palace, Manhattan, February 27 to March 8. One of the chief exhibits this year, as it was last year, was that of the New York Telephone Company, which is regarded as among the first and most successful corporations to adopt progressive ideas for the welfare of its employees. Miss Manz, Assistant Chief Instructress of the School for Telephone Operators, was in charge of the exhibit, assisted by members of the traffic and advertising forces. It is estimated that 60,000 persons visited this booth.

Digitized by Google

Air

Impure Air Reduces the Resisting Power of the System and Renders It Far More Susceptible to Disease

BY DR. ALVAH H. DOTY
Medical Adviser of the
Employees' Benefit Fund Committee

Fresh Air Is a Tonic, Both in Health and Sickness, and a Powerful Factor in Combating Disease

In recent years the subject of Hygiene, which treats of the laws of health, has received careful consideration on the part of the public, and special attention has been given to what are termed "preventive measures"; this refers to various simple and practical means which are employed to preserve health and protect against disease. The importance of this cannot be overestimated, for it offers a condition of well being which could not otherwise be secured.

In order to obtain the benefits which these measures extend, it is necessary to know the value of pure air and water, proper food, and the methods by which the body, the home, and workshop, may be cared for. In dealing with this we must first consider the subject of air, for it is this which is most necessary to life.

Effect of Air Pressure on the Body

We live in a sea of air, or atmosphere, which surrounds the world at a depth of many miles; naturally this involves a great pressure, which is equivalent to a weight of over fourteen pounds on every square inch of surface at the level of the sea. One of the important effects of this pressure, so far as the human body is concerned, is to aid in maintaining the equilibrium of the heart's action and the circulation of the blood. When a very high altitude is reached, this control over the circulation is somewhat lessened as the weight of the air is diminished, the heart frequently becomes disturbed, and some of the very small blood vessels often burst and nose bleed may occur. This condition is familiar to travellers who ascend lofty mountains, and it is usually unattended with danger unless some serious organic disease of the heart exists.

Composition of Air

Air is composed of gases, principally oxygen and nitrogen, about twenty per cent. of the former and nearly eighty per cent. of the latter. There is also carbonic acid present. These gases which are mixed together do not change in their relative proportions. In addition there is watery vapor and also various forms of impurities which vary in amount and composition according to the environments, the purest air being found at sea and in mountainous regions, where there are no means of generating offensive or poisonous gases, or supplying other forms of pollution. While the presence of nitrogen is necessary to dilute the air, for the oxygen alone would be too stimulating for respiration, and while carbonic acid is needed to support vegetable life, it is with oxygen that we are chiefly concerned, for of this we must have a constant supply to maintain our existence.

Why Fresh Air Is Essential to Health

Through the respiratory tract the air reaches the lungs, where a vitally important interchange takes place. Here oxygen is absorbed into the system to enrich the blood and to aid in renewing the worn out tissue of the body, and in exchange carbonic acid and other products representing waste matter are thrown off with the expired air. This interchange occurs in the minute air cells, of which the lungs are composed. The surface represented by these little cells is so great that if spread out would cover a space of five or six hundred square feet. The air cells also play a very important part in some diseases, for instance, in pneumonia they become filled with the product of inflammation and air cannot enter the portion of the lung involved, and if this condition is sufficiently extensive a fatal result follows, and in tuberculosis or consumption, the cells are not only rendered useless, but ultimately are destroyed, forming cavities in the lungs which are found in the latter stages of this disease.

This teaches us an exceedingly important lesson, i.e., the value of keeping the lungs properly filled with fresh air, in order that all parts of these organs may be kept in a healthy and active state. In this way the air not only reaches the cells but it also allows free exit of poisonous waste products from the tissues, and renders the lungs far more able to resist disease.

Nature Must Be Aided by Personal Hygiene

Impure air is found both within and without buildings. Outside its source is the various industrial occupations, particularly where coal is used in large quantities, the combustion of which generates gases injurious to health. Too high or too closely constructed buildings, narrow streets which prevent proper circulation, refuse and decomposing organic matter are also frequent causes of impure air. Nature goes far to neutralize these unhealthy conditions by oxidation, by winds which rapidly displace the air and freshen it, and by rains which wash out and carry down all sorts of impurities; instinctively we recognize the changed condition of the air after a storm. Sunlight and vegetation are also very important factors in securing this result. It is the great excess of impurities commonly found in the air and which nature is unable to deal with, that constitutes the more serious menace to health from this source.

Within a building the most frequent causes of impurities are the exhalations and moisture from the lungs, mouth and skin of those present. Dust, improper plumbing and other unsanitary conditions are also usual means of vitiating the air. The unpleasant odors which are almost always noticeable where large numbers of persons are brought together, are due principally to decomposed organic matter from decayed teeth, mouth and skin, particularly where cleanliness is not observed. Therefore these unpleasant effects may be greatly diminished by the careful observance of personal hygiene.

In manufactories and mines there are, in addition to the impurities above referred to, products arising from the various occupations, such as particles of coal, stone and metal, which are largely responsible for disease of the lungs so commonly found amongst employees of these places.

Air is carried into the soil and when mixed with decomposed organic matter underground, becomes offensive and unhealthy. Poisonous and inflammable gases are also generated beneath the surface, and may be found at a considerable depth; therefore when excavations are made, or during mining operations, these gases are frequently released and are not only detrimental to health, but often when exposed to flame or the oxygen of the air cause explosions. Carburetted hydrogen, or "fire damp," is an illustration. This condition is not infrequently the cause of offensive and unhealthy cellars, for if the walls of these apartments are not properly constructed underground gases may enter and not only cause unpleasant odors, but may contaminate milk or other foodstuff which is present.

It is not difficult to understand why those who work in mines are frequent victims of tuberculosis. In marked contrast to this is the fact that those who are most free from this disease are farmers and fishermen, whose occupations keep them more or less constantly in the open air.

Pure Air Combats Disease

There is a popular belief that impure air is the origin of infectious disease; this is not true; the danger of impure air lies chiefly in the fact that it reduces the resisting power of the system and renders it far more susceptible to disease.

Modern sanitation has brought about a more serious realization of the necessity of pure air, both to the sick and to the well. Physicians know the importance of it in disease, and the windows in sick rooms are no longer closed; certain affections are treated in the open air with the most satisfactory results, and medication in certain ways has been discarded. Sleeping in the open air is now a common practice, and those who adopt it under proper conditions learn the stimulating and invigorating effect of it. Fresh air is therefore a tonic, both in health and sickness, and a powerful factor in combating disease.

The Night Air Fallacy

It is not necessary that the public should attempt to deal with the mass of literature relating to the scientific investigation of this subject, further than to learn that impure air is not compatible with good health, and those who are constantly exposed to it have a lowered vitality and succumb more readily to disease. We should always bear in mind that it is not the minimum, but the maximum amount of fresh air to be sought for, and this can only be found outdoors.

While it is impracticable for many to secure extended outdoor exercise, there are but few who, if they try, cannot find in

Digitized by Google

some part of the twenty-four hours an opportunity to exercise in the open air. The belief that night air is detrimental to health is without foundation. It was formerly believed that it bred malaria; now we know that this disease is transmitted from one person to another by the mosquito, and that exercise even after sundown is also very beneficial. Careful attention to this important requirement returns a large interest, for in a way it compensates for many hours of indoor work under unfavorable atmospheric surroundings. By this means health may be maintained.

Dwelling houses and apartments should so far as possible be selected where good air space exists, away from narrow streets, high buildings, manufactories, or offensive trades. Residence in suburban towns should be encouraged, in order that pure air may be enjoyed, even if it involves time and discomfort in traveling, for it will secure better health and longer life, and is particularly necessary for children, for the latter are like plants and must have fresh air and sunshine to thrive.

Proper Indoor Ventilation

Ventilation, or the purification of air, within the house has chiefly to do with the cold months, for in summer when the windows and doors are open sufficient air is usually secured by natural means for all purposes. While the most complete ventilation does not secure all the value of outside air, it is important that it be given the most careful attention in connection with the hygiene of our homes and workshops.

In this, as in the purification of air, nature plays a very important part, for owing to the great pressure of the atmosphere and the law of the diffusion of gases, it is practically impossible to prevent air from passing into the house, for it will enter every opening no matter how small it may be, even through bricks and mortar; still this does not secure the needed amount and it devolves upon us to use every effort to obtain a constant supply of fresh air.

Air which is warmed becomes lighter, expands and ascends, therefore it will more quickly escape from a higher level in the apartment; for this reason exits for impure air should be arranged in the upper part of the room. Cold air is more condensed, heavier, and descends, and may be better introduced at a lower point, although this should not be too close to the floor, for the fresh air which is below the temperature of the room may be uncomfortable about the feet of those in the apartment, and may also cause colds or other unpleasant conditions. Furthermore, air for ventilation should not be taken too close to the ground, for the surface contains decomposed organic matter and other forms of impurities. The incoming current should if possible be given an upward turn. In this way it better mixes with the impure air, and dilutes it. It is also desirable that the force of this current or draught should so far as possible be diminished on entering the room, particularly if the air is frequently introduced. This may be modified in a simple way by the use of cheese cloth or some other loosely woven fabric, or fine wire netting, placed over the opening which admits the air. If such articles are employed, they should be frequently changed or cleaned. These points are followed by engineers in supplying ventilation to great buildings and even in large dwelling houses. By modern apparatus it can be so arranged that those present are not conscious of the continued withdrawal of impure air or of a constant supply of fresh air.

While there are many kinds of simple, inexpensive and effective apparatus which may be purchased for ventilating the interior, each person interested should, if practicable, improvise his own methods of house ventilation, not so much for purposes of economy as the education which is gained by a familiarity with this subject. Windows can always be opened and by this means, if no other, fresh air can be obtained. Those who sleep outside, or in an apartment where the air enters freely and who are protected by proper covering, know full well the healthful effect of this modern hygienic measure.

Purification of Air Depends on Cleanliness and Sanitation

It must be remembered that the purification of the air within the building depends largely on cleanliness and other sanitary observances. The accumulation of filth in various forms, bad plumbing, defective heating and lighting apparatus and other unsanitary conditions go far to neutralize the value of careful ventilation.

Various heating and lighting agents in use vitiate the air. A coal stove cannot be regarded as a sanitary or modern means of securing warmth, for the latter is not evenly diffused throughout the apartment, and when the stove is highly heated the air becomes unpleasantly dry and particles of organic matter floating about become charred and offensive. These details require careful consideration, for a certain amount of moisture is necessary and if the air becomes too dry respiration is interfered with. The danger from a stove is not imaginary, for the combustion of coal forms poisonous gases, which frequently enter the apartment, particularly when fresh coal is added. Therefore, if stoves are used, this danger should be guarded against by having the chimney or stove pipe damper fully opened in order that the gases may quickly escape. It is not an uncommon practice, in sections where stoves are depended upon, to leave the door open and partly close these dampers to reduce the heat; this should not be done, besides the damper in the stove pipe or chimney should be so constructed that it cannot entirely be closed. Moisture may be supplied by placing a receptacle containing water on the stove or in its immediate vicinity.

Best Heating Systems

We have been taught that grate fires secure very excellent ventilation and that the draft up the chimney takes with it the impure air in the room. While this is true to a certain extent, the suction force may also carry up the fresh air just entering the room, and materially interfere with the ventilation of the apartment. In some instances as a result of adverse winds, air may even blow down the chimney, with unpleasant consequences. It is enough to know that there are more simple and modern means of ventilation.

Hot water and steam are satisfactory and sanitary means of securing heat, for the warmth they supply is more equally diffused and the needed moisture in the apartment is less interfered with than when other methods are employed. Besides, these agents consume no oxygen and give off no product of combustion to vitiate the air. For these reasons electricity is also a very valuable means of obtaining heat; however, at present the expense of this method renders it impracticable for general use. Although, from a sanitary standpoint, hot air is inferior to steam and hot water, it may safely be used for heating purposes if the furnace is properly cared for and if fresh air from outside and moisture are constantly supplied for its operation.

While gas and oil present about the same objections for heating as they do for illuminating purposes, i. e., unhealthy products of combustion and the absorption of oxygen, it must be said that heating apparatus for the use of these agents have been so far improved that with care they may now be employed without injurious effects.

Advantages of Electricity As a Lighting Agent

It would be difficult to estimate the value of electricity as a lighting agent, for as it has already been stated, it consumes no oxygen and gives off no products of combustion, and is far less heating than other illuminating agents. Before electricity was employed for this purpose it was exceedingly difficult to ventilate properly theatres and other buildings where many were congregated, and where gas and oil were used in large quantities for illuminating purposes.

Free Ventilation Essential in Workshops

In workshops there must be very free ventilation, particularly where employees are performing manual labor, for the exhalations from the skin and mucous membrane under these circumstances are greatly increased and more rapidly thrown off than where but little physical exertion is required.

In the country, and to a certain extent in private dwellings, or properly arranged apartments in the city, the danger of impure air is not so very great, nor is the belief justified that the air in theatres, subways, or public conveyances is injurious to health, for even if the air is more or less impure, the exposure is of comparatively short duration, and nature supplies a tolerance of this to the extent that practically no harm is done, except possibly to the employees who are more or less constantly present.

The real danger lies rather in the constant exposure to impure air, particularly among those who live in closely built tenement houses, in districts where there is but little chance of securing even fair ventilation. It is here where sickness is constantly present, and it is very important that those who are obliged to reside in these places should be taught not only the value of fresh air, but the best means of securing it under adverse circumstances. They should know that aside from the efforts which they may make to secure this at home, the most valuable remedy for these unpleasant surroundings is to remain outside as much as possible. We may learn much from animals in this direction, for their freedom from disease is in a measure unquestionably due to the fact they are almost constantly in the open air.

Open Air Exercise

A careful consideration of this subject will not only indicate the importance of fresh air in the preservation of health, but it will also prove that the latter may be maintained by means which are simple and practical. Of these the most valuable of all, particularly for those who are employed within doors, is daily exercise in the open air, for instance, by a walk of three or four miles or more. By following this course, good health may be preserved and disease prevented, even under very bad sanitary surroundings.

Digitized by Google

Practical Co-operation in Western Division

THE plan which was introduced in the Western Division on April 13, 1912, urging the employees of that Division to talk Bell Telephone Service on every occasion, and, when interest was aroused, to turn in the names of the prospects to the Commercial Office, is still working to advantage. We should like to give the name of each Plant representative whose work has been beneficial in securing new business for the Company, but lack of space prevents our doing so. The following synopsis, in brief, shows the results for the month of January.

In the Buffalo District Plant representatives turned in a total of 37 prospects of which 20 resulted in contracts and 11 are pending.

In the Rochester District the work of the Plant Department was even better than in the Buffalo District. Out of 38 prospects, 28 resulted in contracts and 7 are pending.

In the Jamestown District 4 prospects, or 100%, resulted in contracts.

The Plant Department employees deserve great credit for their interest in the development of the business.

FORTY-FOUR employees of the Equipment Department, Rochester District, held a dinner on February 22, which was so successful that it was decided to make it an annual event hereafter.

The local orchestra furnished the music, and various songs composed for the occasion were sung.

After the dinner, the toastmaster, R. M. Bruce, District Equipment Supervisor, called on various employees present for impromptu remarks, and Mr. Walters, District Foreman, gave a stereopticon exhibition, showing poles and lines torn down during the recent storm, pictures of the construction of the new Central Office, Buffalo, in connection with which he called attention to the latest improvements in telephone engineering, and pictures of P. O. Jacobs, Division Plant Superintendent, and others. Interspersed with these pictures were cartoons and humorous scenes referring particularly to the employees present.

The question of new business for the year was taken up, and each employee was asked to specify the number of "prospects" which he would undertake to turn into the Commercial Department. Over 300 prospects were promised.

"Men on the Job" in Paterson

THE following picture was received without any story accompanying it, but it possesses an interest which justifies using it as it is.

A great amount of construction work is being done in the New Jersey Division, and the "Paterson Gang" has performed its part in a highly creditable manner.

CABLE CONSTRUCTION GANG, PATERSON, N. J.

Moving A Fire House

THE New York Fire Department found it necessary to remove a two-story building occupied as a dormitory and signal station, from the foot of 132d Street and Lexington Avenue, to 135th Street and Lexington Avenue, on account of the building of the upper section of the Lexington Avenue subway.

As every such unit serves a locality which would be without the means of fire protection if telephone service were discontinued, the question of temporary telephone facilities while the building was being removed was an important one. The method employed in this instance was as follows:

TRANSPORTING A BUILDING OF THE N. Y. FIRE DEPARTMENT ON A SCOW TO A NEW LOCATION.

The house was raised and placed on tracks which extended to a flat scow that had been tied fast to the dock at 132d Street. A temporary instrument was installed in a shanty about twenty feet away from the building and connected with the circuit serving the fire house. A piece of bridle wire was connected to the telephone in the fire house, with sufficient slack to permit the instrument to remain in service while the house was being moved down to the water's edge and on to the scow. When the scow was ready to move off, this connection was cut, which left the instrument in the shanty in service.

At the new location, a new aerial line had been built, tested out and half tapped to the old line at the Harlem Exchange, with sufficient slack to reach to the landing, and upon the arrival of the fire house on the scow, the new connection was made and the temporary installation on the other side was discontinued. The trip up the river lasted fifteen minutes, during which time the Fireboat *C. W. Lawrence* was awaiting its orders from the shanty.—C. R. ALBRECHTSON, Plant Dept., Murray Hill.

Digitized by Google

The Telephone Society of New York

Main Section

THE monthly meeting of the Main Section of The Telephone Society of New York on February 19 at the United Engineers Building afforded an excellent opportunity for employees to receive interesting information on a subject which concerns all. There was an unusually large attendance. The gallery was reserved for ladies, but many were obliged to find seats on the main floor.

The Blue Bell Orchestra opened the meeting with an overture. After 64 new members had been duly elected, Vice-President Jewett, who presided in the absence of President Cox, introduced T. P. Sylvan, Secretary to the Pension Fund Committee, who read a paper on "Some Phases of the Employees' Pension, Benefit and Insurance Plan."

Mr. Sylvan took up many details of his subject mentioning several features concerned with types of accidents, and read several letters to illustrate the points brought out. The large audience interrupted him with frequent applause and was keenly interested throughout the reading of his paper.

Mr. Sylvan was followed by C. G. DuBois, Comptroller of the American Telephone and Telegraph Company, who discussed the formation of the pension plan and emphasized strongly the relations existing between the company and its employees. G. C. Pratt, Secretary of the Western Electric Company, then explained how the Western Electric pension fund was working out, despite the many problems encountered.

Vice-President Jewett then asked for questions from the audience on any points about which information was desired, and several were propounded, which Mr. Sylvan answered.

The meeting then adjourned to the fifth floor where a reception was held to which the ladies were invited. Refreshments were served, and the orchestra enlivened the occasion with several selections.

Western Section

ON February 13, the Western Section of the Telephone Society of New York held its 12th meeting in the Perkins' Memorial Hall of the Central Y. M. C. A., Buffalo. As a large attendance was expected, tickets were issued for admission. This proved a good forethought, as 650 members and employees of the Associated Companies were present.

The meeting was called to order by Chairman Parker at 8:30, and several matters of business, including the election of 48 new members, were transacted.

The guest of the evening, T. P. Sylvan, Secretary to the Employees' Pension Fund Committee, then delivered his paper entitled "Some Phases of the Employees' Pension, Disability and Insurance Plan."

After a rising vote of thanks had been extended to Mr. Sylvan, remarks were made by Miss Gannon and Messrs. Deas, Welch, Campion and Ramsdell.

Hudson Section

THE fourth district meeting under the auspices of the Hudson Section of the Telephone Society of New York was held at Glens Falls on the evening of February 11. About 100 men from Glens Falls and Saratoga Springs attended, and judging from the enthusiasm and lively interest displayed in this meeting, there is reason to believe that the future meetings in this locality will be very successful. H. P. Miller, Division Sub-License Manager, acted as Chairman, and a paper on, "Our Work in the Hudson Division and a Look Into the Future" was read by J. A. Jamison, Jr., Division General Manager.

Following the paper interesting remarks were made by E. H. Powley, Division Plant Superintendent; W. R. Adams, District Manager; H. A. Beaton, Local Manager, Glens Falls; J. N. Crocker, Local Manager, Saratoga Springs; F. L. Flanagan, District Traffic Chief; C. H. Teegarden, District Plant Superintendent, and R. P. Bunyan, Construction Foreman.

Addresses by Vice-President Bethell

MR. F. H. BETHELL, Vice-President of the New York Telephone Co., was the speaker at the meeting of the Western Section in Buffalo on March 13, and of the Central Section at Syracuse on March 14.

Mr. Bethell will be the speaker at the meeting of the Main Section in New York on the evening of Tuesday, March 18.

Organization Changes

NEW JERSEY DIVISION.

Plant Department

Wm. Wismer, formerly Lineman, Newark District, appointed Foreman of Repairs, Newark District.

W. F. Brown, formerly Lineman, Newark District, appointed Line Foreman, Newark District.

E. J. Connors, formerly Lineman, Morristown Sub-District, appointed Assistant Foreman, Morristown Sub-District.

HUDSON DIVISION.

Commercial Department

In addition to his present duties, H. P. Miller has been assigned to act in an advisory capacity and to assist the field force in directing the general sales work. He will also have direct supervision of the Advertising Department. Special Agent Davenport and his force will report to Mr. Miller.

The following former Local Managers of this Company have been transferred to the Mountain Home Telephone Company, whose headquarters are at Plattsburg, N. Y.; F. H. Leonard, Malone, N. Y.; W. H. Schuyler, Plattsburg, N. Y.; N. A. Jennings, Saranac Lake, N. Y.

CENTRAL DIVISION.

Commercial Department

George H. Reynolds appointed Resident Agent at Corning, vice Charles R. Rogers, resigned. Mr. Reynolds will also continue as Resident Agent at Bath, reporting to Local Manager, Elmira.

D. P. Bone appointed Local Manager, Elmira, vice C. B. Burch. Mr. Bone will report to District Manager, Binghamton.

C. B. Burch appointed Sublicense Agent, reporting to the Division Sublicense Manager, Syracuse. Mr. Burch will devote his entire time to sublicense work in the western part of the Binghamton District, with headquarters at Elmira.

W. W. Doolittle, Salesman at Binghamton, appointed Chief Clerk at Binghamton; the office of Local Manager, Binghamton, will not be filled. The Chief Clerk, Binghamton, and Resident Agents at Norwich, Deposit, Owego-Waverly, will report to the District Manager, Binghamton.

Plant Department

All employees in St. Lawrence County, including forces stationed at Ogdensburg, Potsdam, Madrid, Canton, Fort Covington and Massena, were transferred to the Mountain Home Telephone Company as of February 1.

Digitized by Google

Partial Summary of Outside Development Work, Planned or Under Way

Tremont District, The Bronx

THERE has been a net increase of about 25 per cent. in the number of telephones in the Tremont District during the past year. About 6,500 subscriber lines can be cared for from the Tremont switchboard, which is of the Western Electric Company's common battery type No. 1, and with the rapid growth which is being secured it is expected that this number of lines will be in service within slightly more than a year.

In order to provide relief after that time provision has been made for a two-story and basement extension to the building, which work is now well under way, and for installing a second switchboard. This new board will have a capacity for about 10,500 subscriber lines, with an initial equipment for 3,600 lines to care for about three years' estimated growth.

Appropriations for about $158,000 have been authorized by the Executive Committee to cover the cost of this work.

East New York Central Office, Brooklyn

THE sum of $115,000 has been appropriated under two recent estimates for constructing an additional story on the East New York central office building at Herkimer and Sackman Streets, Brooklyn, and for increasing the equipment of the switchboard in this office from 4,500 to 7,000 subscriber lines.

There has been a growth of over 16 per cent. in the number of telephones in this district during the past year, and the growth expected during 1913 will exceed this rate and will require additional central office equipment about the end of the year.

Flushing, N. Y.

LARGE additions have been made to both feeder and distributing plant in the Flushing District within the last two or three years, as described in previous issues of *The* TELEPHONE REVIEW. In this district, which includes Flushing, College Point, Whitestone, Bayside and Douglaston, a continuous and substantial growth has been secured during the past few years, and this growth is expected to continue. $23,000 has been appropriated under a recent estimate for constructing a number of new underground cable terminals and placing over 7 miles of cable in this district. This will provide this district with sufficient facilities to care promptly for the growth expected during 1913.

Hudson, N. Y.

EXTENSIVE additions are being made to the distributing plant in the Hudson Exchange District under a recent appropriation of about $12,000. About 4 miles of cable will be placed and nearly 50 miles of aerial wires removed. This work will not only provide a complete distributing plant throughout Hudson, but will reduce the number of maintenance troubles to a minimum and greatly improve the service. The large growth now being secured in this district is expected to continue for some time, and with the additional facilities now being provided new business can be promptly cared for.

A special campaign for new business is being conducted, and during the past three weeks ninety stations have been added.

Poughkeepsie, N. Y.

IN a recent issue of *The* TELEPHONE REVIEW mention was made of the extensive underground construction work and the removal of a large amount of aerial plant which has been provided for in Poughkeepsie. There are now more than 4,100 telephones in service in this district, and it is estimated that the growth during the next two or three years will be even greater than that during the past few years. To provide additional central office facilities to care for the estimated growth for about two years after completion, an appropriation of about $13,000 has been authorized for increasing the equipment of the switchboard from 2,500 to 3,000 subscriber lines. This work, together with the outside plant work, will provide Poughkeepsie with a telephone plant complete and up to date in every respect.

Philmont, N. Y.

PHILMONT will have a cable distributing system installed during the next few months, provision having been made for placing about 1¼ miles of cable, together with a considerable amount of pole work and the removal of a number of aerial wires, under an appropriation of about $3,300. The completion of this work will result in a great improvement in the service, and with the increased feeder and distributing plant it is estimated that the number of telephones in this district will be nearly doubled within the next three years.

Trumansburg, N. Y.

THE Executive Committee has recently approved the expenditure of $3,800 for pole line and aerial cable construction in Trumansburg, N. Y. The outside plant at present consists mainly of open wire on which maintenance is high, and the construction of new open wire or twisted pair circuits along these lines to connect new stations is impracticable because of the heavy tree growth. This appropriation will provide for placing poles and aerial cable on the main street of the village with branches on some of the side streets. In connection with this work it is planned to move the central office to a new location.

Fairport, N. Y.

THE village of Fairport has a population of about 3,100, which includes an increase of about 25 per cent. during the past ten years. The number of telephones has increased steadily, and the cable plant does not contain adequate facilities to care for the large further growth which is expected.

Provision has been made under a recently approved estimate for placing nearly two miles of cable and removing a large number of aerial wires in Fairport, and an appropriation of about $6,450 has been authorized by the Executive Committee to cover the cost of this work.

Buffalo, N. Y.

A SHORT time ago mention was made in *The* TELEPHONE REVIEW of additions to the plant which have been provided for in Buffalo during 1911 and a part of 1912. Since that time, or during the past four months, appropriations for about $225,000 have been authorized for placing approximately 47 miles of underground and aerial cable, together with a considerable amount of subway and subsidiary duct construction in the various districts in Buffalo. These additions, together with a large amount of work now under way, will put the feeder and distributing plant in excellent condition throughout practically the entire city with ample facilities to care for new business without delay. The placing of cables to care for lines now in aerial wire will reduce maintenance troubles to a minimum, in addition to causing a marked improvement in the appearance of the plant. The eight central offices in Buffalo are now serving about 33,000 telephones and a net increase of more than 5,600 telephones is estimated for 1913.

Digitized by Google

Live Wires

Suggested by Mr. W. C. Asman, Plaza Commercial

"LIVE WIRES" is suggested as a caption for this page by Mr. W. C. Asman, Plaza Commercial. We take it for granted that he means this title to be used in a double sense, namely, the wires which connect every telephone in our great System and the contributors to these columns who supply us with "live" news.

Who will suggest a caption for next month?

Not Yet

Recently a gentleman came into the Yonkers office and inquired if we had a telegram for him from Elmira, N. Y. I made inquiries of the Western Union Office and found that a messenger had left with the message about half an hour before.

When I informed the gentleman, he said, "Did they telephone the message?" I asked him if he could be reached by telephone, and he answered in the negative. I saw the joke right away, and he did—later. Evidently our "Telegrams by Telephone" advertising had so impressed him that he thought all telegrams were telephoned somewhere.—(MISS) MINERVA A. KLEIN, Yonkers Commercial.

Educational

MR. EDITOR:

No doubt you would like to know how you are succeeding in your efforts to educate the people to the proper way to speak over the telephone.

While working at a subscriber's residence, the telephone bell rang and the butler answered saying: "Mrs. Blank's butler speaking (ending in a upward pitch of the voice). Hold the wire please, I will call her."—Orange Installer.

A Word of Praise

The following letter from a Dover, New Jersey, subscriber is just an example of thousands of similar cases which happen every day.

Dover, New Jersey,
Jan. 16, 1913.

New York Telephone Co.,
Gentlemen:

Just a word of praise for the telephone. Today I took a business walk, stopping at several places, which occupied the entire morning. On my return home I discovered that I had forgotten my umbrella (a recent Christmas gift) at one of my stops. I said to my wife, "I will have to take that long walk over again." She immediately replied, "Why not use the telephone?" "Good thought," said I, and proceeded to get busy. After making several telephone calls, I located my property.

I assure you I appreciated the assistance of the telephone very much indeed and wanted to let you know what a great convenience it is to your subscribers.

Respectfully,
ONE OF THEM.

Accounting Club Meets

The regular monthly meeting of the Accounting Club was held at 30 Church Street on the evening of January 20.

Mr. J. R. Pollock, Division Commercial Manager, Manhattan-Bronx Division, in an interesting paper on the relation of Commercial Work to that of the Revenue Accounting Department, pointed out very clearly the necessity not only for good work on the part of the Accounting Department but thorough and comprehensive co-operation with the Commercial Department in order to insure satisfactory collection results.

Mr. Pollock's paper was followed by remarks from Messrs. A. D. Welch, P. O. Coffin, A. J. Norman, I. Harris and E. C. Michell.

At the February meeting, held on the evening of the 17th, the speaker was Mr. A. W. Deas, Division Auditor of Receipts, Hudson, Central and Western. His address was a most interesting and entertaining effort. At the conclusion he received the enthusiastic applause of his audience.

A Reminder

We often hear of incidents which are said to take place at the psychological moment. Such seems to have been the case when a business man in the Longacre Building, New York, opened by mistake a letter from one of our commercial offices, bearing his last name, but initials other than his own. The result of the error was that he was reminded of the fact that he needed a telephone and proceeded to order one.

Telephone Serves Both Tradesman and Customer

A grocer in Flatbush relates the following: One of his good customers called him on the telephone one day and said she wished to go shopping, but that her money was low. Would he send over a certain amount by a messenger immediately, in exchange for which she would send back her check? Thus the telephone enabled the grocer to accommodate a customer, win her appreciation, and enable her to carry out her plans.

Building a Battleship by Telephone

The newspapers report that Lieutenant-Commander Walter B. Tardy, who is in charge of the engineering work on the new super dreadnaught "New York," superintended it by telephone while quarantined at his home on account of diphtheria in his family.

Throughout every day of his enforced detention from his office in the Brooklyn Navy Yard, Lieutenant-Commander Tardy received reports and gave directions over the telephone in regard to the progress of the work.

This method of naval construction is unique, but the case in point proves what can be done over the telephone through efficient and trustworthy subordinates.

Isolated Lighthouse Keeper Gave Warnings By Telephone

During the recent sleet storms that covered the western part of the State, one Bell telephone among the many that did yeoman service earned special mention.

In an earlier issue of *The* TELEPHONE REVIEW was a description of the telephone installed at the end of the West pier, one mile out into Lake Ontario at Charlotte Harbor, with a direct-line instrument and Moore gong attachment in the quarters of the light keeper, to enable the B., R. & P. R. R. to get reports on the progress of the monster car ferry "Ontario No. 1."

When on the morning of the well remembered Friday, January 3, the keeper of the U. S. Life Saving Station in Charlotte noted that the barometer was falling very rapidly, he immediately got in communication with the light keeper and cautioned him concerning the coming storm. As the trip along the pier to the lighthouse is a very dangerous one during a storm, and the keeper is often unable to pass back and forth, he took his basket of provisions with him.

About three in the afternoon the storm began on the lake. The big ferryboat was on her way from Canada and through all the wind and snow made her way into the harbor by the aid of the air blown fog horn at the lighthouse. From then on the keeper kept us all informed of the progress of the storm and even gave us warning of the change of direction, and of the beginning of the second

Digitized by Google

storm which started Monday. He kept the railroad company posted as well, and, on account of the need of coal on the other side, notified the boat's officers the earliest moment that the boat could safely leave the port. Through all the storm this lonely telephone station out on the lake was always in service and gave proof of what "Universal Service" means.—

GEO. G. ESTES,
Plant Department, Charlotte, N. Y.

Telaudis Club

The Male employees in the office of the Auditor of Disbursements of the American Telephone and Telegraph Company, Long Distance Lines Department, about fifty in number, have organized the Telaudis Club.

This organization holds monthly meetings with the object as stated in the by-laws of "Promoting Sociability among its members and providing an opportunity for helpful discussion of matters relating to their work."

The following are the officers of the society: F. C. Salisbury, President; S. P. Hunnewell, Vice-President; E. L. Grandy, Secretary; E. T. Bryant, Treasurer.

Athletics by Telephone

When rival athletic teams representing cities or towns miles apart wish to clash, it is customary for one to invade the territory of the other or to meet on neutral ground. Traveling expenses, therefore, constitute a large item and cause many a wrinkle to appear on the brow of a manager as he figures the cost of a team. Often, a club or an institution is unable to send as many men as are needed because funds are lacking.

Of course, in many forms of athletics, such as baseball, football, wrestling, etc., the teams must meet face to face. In track and field meets, however, this rule does not apply.

For example, Y. M. C. A. track teams in Glens Falls, N. Y., and Saratoga, N. Y., are to compete, each team to run off its events in its own gymnasium. The results of each contest will be exchanged between the teams in Glens Falls and Saratoga by Bell telephone.

They have hit upon a scheme which has solved a problem and probably will be followed extensively.—H. A. BEATON, Local Manager, Glens Falls.

A Convincing Argument

A New York party sent a telegram addressed to a farmer several miles out of Kingston, and was advised that there would be delivery charges of one dollar for livery, which he refused to pay. He requested that under the circumstances the telegram should be mailed.

As it was Saturday afternoon and there was no rural delivery until the following Monday, the delay in the receipt of the message resulted in a complaint on the part of the recipient.

The matter was fully explained, however, to his satisfaction, and it was further pointed out to him that if he had consented to have us put a telephone in his house when previously canvassed, the message would have been delivered within a very few minutes after its receipt in our office.

This practical demonstration of the value of the telephone was conclusive and he immediately signed a contract.

R. D. CLEARWATER,
Local Manager, Kingston.

Elizabeth, N. J.

After occupying "residences" in Elizabeth, N. J., for over 35 years, the telephone and telegraph are again under one roof, at 1206 East Grand street.

From the standpoint of manufacturing importance, Elizabeth is the twentieth city in the United States. The telegraph business was in operation in this city many years before the telephone was invented, and the many great industries have always relied upon it extensively

In 1878 the Telephone Company made its appearance in Elizabeth and rented quarters on the floor above the Telegraph Company not far from the present location, remaining there for a short time.

Many favorable comments have been heard on the arrangement and convenience of the new Joint Bell Telephone-Western Union Telegraph Office, which will enable busy Elizabeth to take advantage of the combined services of the two greatest aids in rapid transaction of business.

F. W. WARNKE,
District Agent.

Telephone a Modern Necessity

The following illustrates how a salesman can secure business by a long and continuous study of his prospect.

About four years ago I canvassed Mr. C., a builder, for service in a new apartment house and met with a "flat" refusal. During the next three years he built at least eight apartment houses, in none of which would he install telephone service. By this time, however, he and I were well acquainted.

Eight months ago he started two more of these buildings and I kept right after him, being turned down as usual right up to the time the plaster was on, which generally means that all is over as far as securing a telephone contract is concerned. Nevertheless, I decided to make one more try.

I found Mr. C. in one of his most pleasant moods. He welcomed me cordially with the words, "Well, old man, I have you beaten again," and told me that he had leased a corner store in one of the new buildings to a druggist whose telephone would be at the disposal of tenants.

This gave me a cue, and I informed him that I had a scheme which would save him money in building construction. Greatly interested, he asked what it might be, as it was "the first good thing I had offered him during our acquaintance." So I unfolded my plan, which was to have a small shanty built in the rear of the houses, containing a bath tub with hot and cold water and one gas range for the use of all the tenants; also they might use lamps. What a saving in plumbing and gas fixtures would be obtained!

This resulted in a lively discussion for about ten minutes. Then he asked, "Have you a contract to cover those two houses?" As I was drawing it up a framer boss advised him not to install a telephone service and was politely asked what he knew about building a *modern* apartment house.

BRONX COMMERCIAL.

Fleet-Footed Aborigine Caught by the "Bell"

The confession of James Thorpe, the world's premier athlete, that he was a professional, which led to his being stripped of honors and prizes won as an amateur, caused a sensation among all branches of the sporting fraternity. Close upon the heels of this information came the news that the mighty Indian had decided to follow the career of a professional baseball player.

As a result, managers of several big league teams sent representatives to Thorpe at the Carlisle Indian School in Pennsylvania, who made the Indian flattering offers. One manager, however, none other than the astute McGraw of the New York Giants, did not take the trouble to send an agent to Carlisle. Nevertheless, Thorpe has affixed his signature to a Giant contract.

Thorpe had listened calmly to the inducements offered by the various agents, but had been non-committal. On being asked point blank why he was holding off, he replied, "The truth of the matter is, gentlemen, that I have just been talking to McGraw

Digitized by Google

over the telephone, and I have decided to sign with the Giants."

The above case is not the first in which men have been landed by the modern way—long distance telephone.

Telephone Number the Only Clue

Recently a lady, her appearance entirely inconsistent with the locality, was found aimlessly wandering about the water front of Hudson, N. Y., apparently under some mental derangement. As inquiries elicited no clue to her identity, she was conveyed to the local hospital, where the medical staff were equally unable to determine her name or her address.

The more she was questioned, the greater grew the mystery, until she finally disclosed a telephone number. With this possible clue, the case was immediately referred to Miss Hackett, our Chief Operator, who was not long in reaching the number mentioned, which happened to be in New York City and which proved to be the correct one, much to the relief of the unfortunate's family, who had exhausted practically every means in their efforts to locate her and to account for her peculiar disappearance. —G. C. DONNELLY, Chief Clerk, Traffic, Albany.

R. F. D.

The chief operator at Ellicottville, N. Y., desiring the correct address of a rural subscriber, called the party and said, "Mr——, will you kindly tell me where you get your mail?" The reply came in all seriousness, "Out in a little box in front of the house."

Didn't Want a Letter

The other day, a subscriber (having a direct line) called up our office and requested that his station be removed to another location. I told him that a letter was required, whereupon he answered, "I won't have a letter on it, I signed a contract for a direct line." After I explained to him that we meant a letter requesting the removal of his telephone, he understood He didn't see the joke, but I did. A. H. SENGSTACKEN, Yonkers Commerical.

Telephone For It

"If you find you are not dressed suitably when you arrive at a dance or entertainment, just telephone home for the maid to send down another gown," advises the New York *Herald.* This good advice is occasioned by the fact that a lady attending a recent ball in the Seventy-first Regiment Armory, New York, found herself in this predicament and lost no time in securing another gown by the above method.

The *Herald* in describing the circumstance under the caption, "Woman Telephones for Gown at Ball," comments only incidentally on the ball, although there were four thousand present, evidently considering that the real "news feature" was the telephone occurrence.

Couldn't Get the Operator

The proprietor of a store in Brooklyn who has a 50-A coin collector in his establishment, recently received a complaint from a lady who said she had deposited 15 cents in the box but was unable to get the operator. He tried the call himself and found the line O. K. On questioning the lady further, he found that she had deposited the money in a Salvation Army box on the wall near the telephone.—J. BODE, Wire Chief, Main.

"Slot Machine in a Coop"

A Passaic subscriber, anxious to have installed a multi-coin public telephone in a booth, applied for "a slot machine in a coop."—C. F. MCCORD, Local Agent, Passaic.

Foreign Language Advertising

Recently the usual pre-directory advertising was placed in the newspapers in one of the Divisions, a few foreign language papers being included.

The publisher of an Italian paper translated the advertisement into the language of his readers, and when it appeared, one of them brought it into our office and read it back into English as follows:

Telephone Guides must be sent at our office before the 10th of January, in a year there are three Guides, therefore must pay attention 7: in case you are late then there take six months more of time.

Are you a subscriber? See that your name is properly written: if you are not a subscriber.

Are you a publisher of Guides? Consider that the Guide is consulted by all.

All the additions and change for your call with our Telephone gives good service.

Upon investigation it was found that the newspaper had translated the English into Italian correctly, but our visitor's lack of knowledge of our language rendered the translation from Italian back into English in the above peculiar manner.

Tuning Up by Telephone

The Orpheus Musical Circle of Dumont, N. J., met in the school house as usual one afternoon in January. It was impossible for the musicians to "tune up" their instruments, however, owing to the buzzing of the audience that had come to be entertained. Mr. W. Beppler finally solved the difficulty by taking his zither to a telephone and calling up Prof. Bersch, who had a piano. The Professor struck the proper key, the sound came clearly over the wire, and Mr. Beppler was enabled to "tune up" his instrument and put all the other instruments of the Circle in accord.

Evidence Lacking

The telephone operator at the Waldorf-Astoria answered a call from one of the rooms and was somewhat taken aback to hear the words, "Oh, you sassy suffragette! Hello Sweetie. Hello Baby."

The indignant operator lost no time in switching the call to the telephone supervisor, who after hearing one "Hello Baby," sent for the house detective. He hastened to the room from which the call had come and found a large Corinto parrot, which had escaped from its cage, still talking into the transmitter, and the receiver off the hook.

The detective reported that as the bird did not have the receiver to its ear, there was no evidence that it had purposely insulted the operator.

Clearing "Trouble"

There have appeared in *The* TELEPHONE REVIEW at different times accounts of work accomplished by employees in a remarkably short time or under great difficulties.

The following coming under the former class may interest some of your readers.

A troubleman from the Jersey City Exchange was sent to inspect the line conditions at the County Institutions on Snake Hill after a severe wind storm last summer. While there he cleared a swinging-open at the gate, a cross on the chapel and an escape at the penitentiary. By means of his come-a-longs he secured a guy loose from the insane asylum, and then went to the tailor's shop and cut out a bad sleeve. After removing a dead loop from the morgue, he buried a ground in the cemetery. Looking around to see if there was anything else that needed attention, he saw and changed a defective anchor at the boathouse. He then went to a telephone to report to the wire chief, stopping on the way long enough to change a worn base on the ball ground.

All the above work was done in a half day because the only time lost was a few minutes spent in front of a fanning-cleat to cool off.—WILLIAM A. WHEELER, Inspector, Jersey City.

Digitized by Google

Seasonable and Appropriate

"Hello Central, this is Mr. O'Toole. Will ye give me Sweet & Carman's sales stables in Poughkeepsie? Yes, I'll hold the line." (One second later) "Hello! Is this Sweet & Carman's? Well, this is Pat O'Toole, Highland. I have charge of the St. Patrick's parade over here, and I want to get forty white horses for that day . . . Phat's thot, ye have no white ones just now, but ye expect a carload ave green ones from the west in a few weeks? Be jabers thot's better yet. Just cancel the order for white ones and send me all green ones."—HARRY E. BEAUDOUIN. Highland, N. Y.

Courtesy Between Druggists

A Harlem subscriber who keeps a drug store on Park Avenue, hands this one over.

His night bell rang about 2 o'clock one morning, and after dressing hurriedly and hastening to the door, expecting to find an emergency call on which perhaps a life depended, he was greeted by an Irishman, who asked permission to use the telephone.

By way of apology, the Irishman explained that he had been sent over by the drug store across the street!—O. R. ALBRECHTSON, Plant, Manhattan and Bronx.

25 Years Ago

The Watertown *Times*, of February 18 printed the following:

LOOKING BACKWARD.

"Generations in their course decay: To perish these when those have passed away."

Taken from the *Times'* Files 25 Years Ago To-day.

The Central New York Telephone Company has put in a large number of long distance phones. A remarkably successful trial of these phones was made by a gentleman in this city a few days ago. He called up the Syracuse hospital and talked without difficulty directly with an employee of that institution, located over 70 miles away.

A Valuable Telephone Directory

The value and use of the Bell Telephone Directory were recently exemplified in this city when an Oriental dealer in rugs came excitedly into our office and asked for his old book, stating that it contained many charges and credits opposite the names of subscribers who were his customers. When informed that his directory was probably one of over a ton sold to a junk dealer several days before, he vainly implored Allah to restore it to him.

He declared that his present directory would be out of sight and reach when our vigilant messengers made the next delivery. — G. J. TAYLOR, Chief Clerk, Elmira Commercial.

Premium on Contracts

Trading in subscriptions entitling the holder to early telephone installation is an active feature of the Japanese stock and commodity market.

They are selling at a premium and the prices fluctuate the same as securities on our stock exchanges. The reason for this is that the demand for telephones in Japan in the last few years has been so great that there is a large waiting list of subscribers, and subscribers are connected up in the order of their applications.

Thus, the applications near the top of the list bring a higher premium than those further down.

The telephone development in Japan has been largely along American lines, which has resulted in this rapid growth.

Mr. Takeo Hida and Mr. Toshiyuki Hatekeyama of the Japanese Government's Department of Communications have recently arrived in this country, with the intention of making an extended tour to study American telephone methods.

Telephone System in Jerusalem

[Deputy Consul Samuel Edelman, Jerusalem, Syria]

The Ottoman Government has recently installed a telephone system in Jerusalem for its own use. There are 10 stations, including Government House, the courthouse, military headquarters, and several municipal police stations. The instruments used are the Bell system and were supplied by that company's Belgian house. The matter of a concession for a public telephone service in Jerusalem, Jaffa, and Bethlehem is still in abeyance.—From U. S. Gov't's *Daily Consular and Trade Reports.*

Telephone Communication Between the Hague and Paris

It is reported that telephonic communication has now been established between The Hague and Paris. Since 1902 negotiations have been in progress, and several times the scheme seemed on the verge of realization, but difficulties occurred which necessitated its postponement.

Connections have finally been established between Brussels, Amsterdam and Paris. Connections from Holland to France having to come through Belgium, cause some delay during the busy hours.

For Manhattan-Bronx Readers

If Beekman is Gold, what is Franklin Worth?—GERALD GRIFFIN, Messenger, Spring.

The Telephone and the Automobile

THE magnitude of the automobile industry has been well illustrated by the large number of shows held during the past two months. Our faithful old friend, the horse, seems destined to sink into obscurity as we reflect upon the great and ever-growing use of the motor car for purposes of business and pleasure.

In New York City, the shows held at Madison Square Garden and Grand Central Palace, January 11 to 25, were attended by large crowds, as was also the Importers' Automobile Salon at the Hotel Astor. The New York shows were followed by similar exhibitions in Buffalo and Rochester, January 27 to February 1, in Newark, February 15 to 22, and in Brooklyn, February 22 to March 1. Every variety of car was exhibited and those unfamiliar with the inner workings of the automobile had an opportunity to see just what the mechanism is like.

The New York Telephone installed complete equipment at all these shows. It consisted of attended public telephone stations with lines running to many of the exhibitors and coin boxes in various parts of the halls. The service rendered called forth unstinted praise from both exhibitors and public. Thousands of pieces of advertising literature and reproductions of *The* TELEPHONE REVIEW covers were distributed.

Aside from the conveniences of the telephone to all present at these shows, the fact is brought to mind that the automobile and telephone work together in many ways.

It has been said that the farmer has been brought into closer touch with the city by the telephone and the automobile. They have banished isolation, and given him a feeling of security as he realizes how easy it is to talk with his friend in city or country by merely lifting the telephone receiver, or to visit him by covering many miles in his motor car in a comparatively brief period of time.

It is perfectly natural that these two great inventions should work together in both urban and rural communities, the one providing the quickest means of communication, the other, one of the quickest methods of traveling between points near at hand or far away.

Digitized by Google

The Winged Message

Noah's messenger was a dove. In Solomon's time, pigeons were trained to carry messages. Brutus used them at the siege of Modena. They served the Turks in their fights against the Crusaders. In mediæval wars they were more useful than ever before.

France had a carrier-pigeon mail service, with messages reduced by photography and read through a microscope.

Even today carrier pigeons are utilized as news-bearers in isolated parts of Europe.

In America, the land of the telephone, the carrier pigeon is bred only for racing. The winged word has taken the place of the winged messenger.

Pigeons may fly more than a mile a minute, but the telephone is as quick as speech itself.

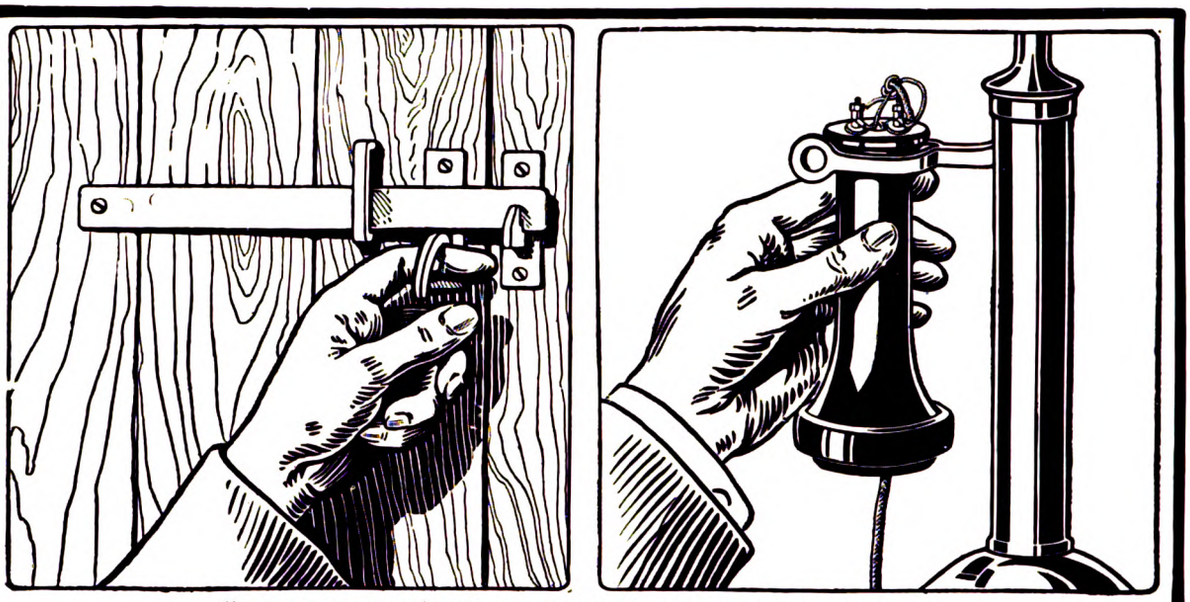
The dove is the emblem of peace. The telephone is the instrument of peace. The telephone lines of the Bell System unite a hundred million people in one national family.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google



"THE TELEPHONE 'LATCH' OPENS THE DOOR TO ALL THE NATION."

"Lift The Latch!"

LIFT the latch on your telephone door and *at once* you step over the threshold of distance and greet your friend or business associate wherever he may be.

How simple and easy it is!

And yet how effective and businesslike!

By telephone you may save possibly a long and tiresome trip. You may save the labor and expense of traveling. You may avoid unnecessary waits, delays and possible disappointment. You may save *practically all* of the valuable time that *might* have been wasted but for the telephone.

Whenever you want to reach anyone, anywhere, any time, why not use the quickest and most economical route?

Just Lift The Latch—Then Talk

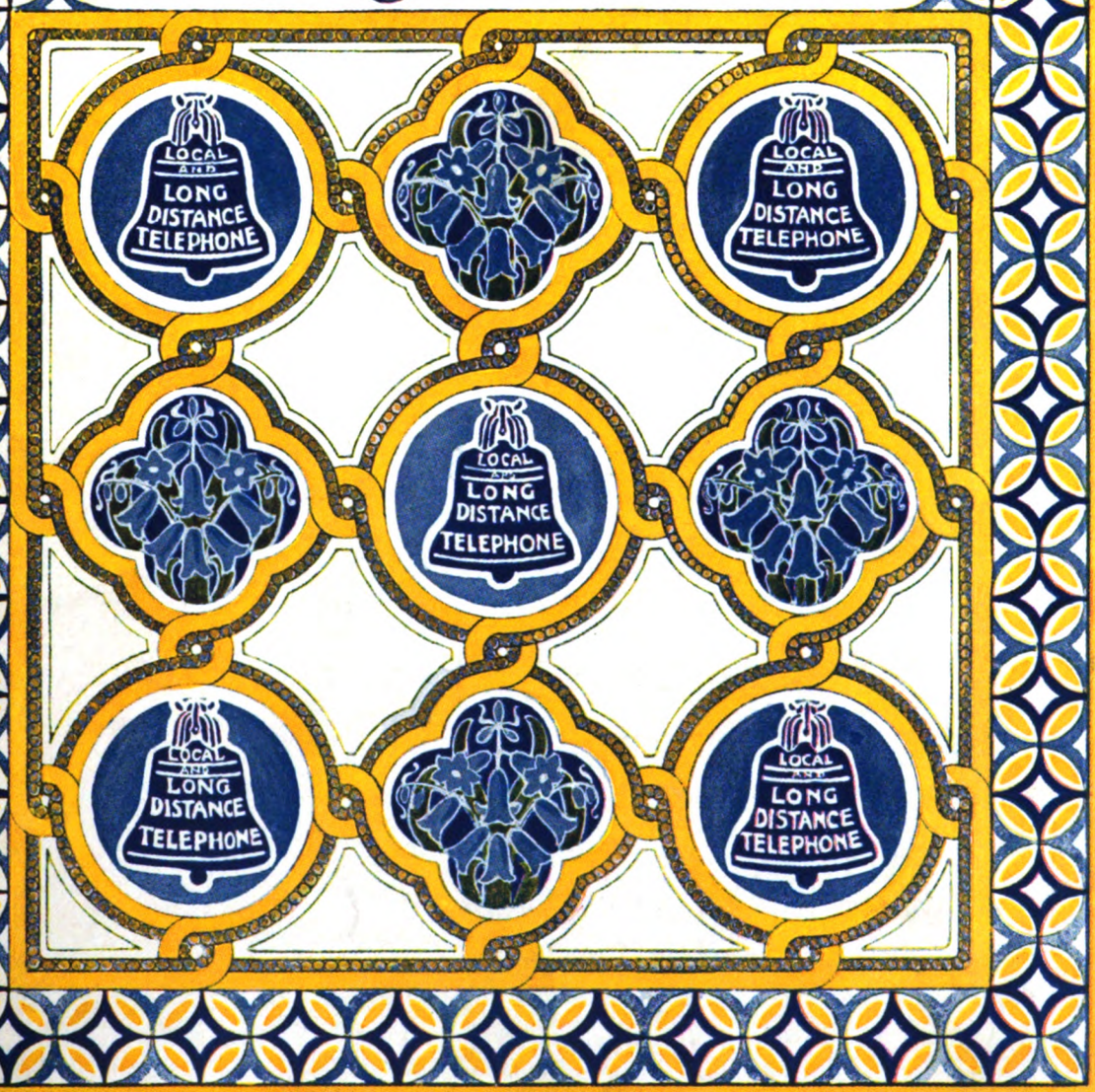
NEW YORK TELEPHONE COMPANY

Digitized by Google

J. M. Buchanan 1111

THE TELEPHONE REVIEW

APRIL 1913 VOL·4 NO·4


LOCAL AND LONG DISTANCE TELEPHONE
LOCAL AND LONG DISTANCE TELEPHONE
LOCAL AND LONG DISTANCE TELEPHONE
LOCAL AND LONG DISTANCE TELEPHONE
LOCAL AND LONG DISTANCE TELEPHONE

Digitized by Google

The Telephone Promotes Business

EVERY enterprising business man is trying to solve the question "How shall I get more business?"

We can tell him how a great many men are building business. They use the telephone to improve their service to their customers, and this leads to increased trade.

The telephone improves service in many ways. It quickens sales, helps in collections and lessens the effort of conducting business.

Are you using the telephone to help promote your business? Have you a telephone?

NEW YORK TELEPHONE CO.

A-2

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV — NEW YORK, APRIL, 1913. — NUMBER 4

The TELEPHONE REVIEW

ISSUED MONTHLY.

Published by the

NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treas.
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, Attorney
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor of Receipts
J. A. KENNEDY, Auditor

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to J. D. Newman, Editor.

VOL. IV. APRIL, 1913. No. 4

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.

Remittances should be made by check, draft or money order, payable to the New York Telephone Co.

Mr. Vail's Report

FOLLOWING our plan of last year, we present a few excerpts from the Annual Report of the American Telephone and Telegraph Co. for the year 1912.

This Company was the very first of the "big corporations" to "take the public into its confidence," and the report shows how "public opinion" has responded when given "full and correct information," as Mr. Vail foretold.

The report furnishes overwhelming evidence in support of the slogan of the Company, "One Policy, One System, and Universal Service."

Whenever an employee is called upon to present a reason for the faith that is in him, he can find it in these Annual Reports.

Copies of this report will be sent by the Division Advertising Managers to any who apply for them, and every employee should obtain a copy and become familiar with the facts it contains regarding the wonderful organization of which we are a part.

The Message Rate

An Address by F. H. Bethell

THE address delivered by Mr. F. H. Bethell, Vice-President of the New York Telephone Co., on "The Message Rate; An Equitable Basis For Telephone Charges," has been printed in pamphlet form, and copies will be sent to employees of the Company.

Additional copies, if any are desired, may be obtained upon application to the Division Advertising Managers.

In his address, Mr. Bethell quotes the opinions of telephone experts not only in this country, but from all over the world, on this important subject. An understanding of the underlying principles governing the making of telephone rates as contained in this paper should convince any open minded reader of the reasonableness of the message rate as a basis for charges.

Advertising Contest

THE prize winners in the Advertising Contest closing April 15 will be announced in our next issue.

The interest which this contest aroused has exceeded all expectations.

As we go to press before the contest for this month closes, and, therefore, the suggestions have not yet been opened by the committee, it is impossible to express any opinion regarding them. There is no doubt, however, that there is keen rivalry among the contestants, because we have had a great many inquiries on the subject from among them. We do not believe that this is due entirely to the prizes of $10, $5 and $3, which are offered, but no doubt again these rewards have something to do with it.

We hope that succeeding months will show an even greater interest, for here is a splendid field for the development of ideas that will be of practical benefit to the Company outside of the work in which employees are engaged. (None of the Advertising Department employees are allowed to compete.)

As we stated last month.—

> The suggestions need not be limited to one kind of advertisement, the more the better. It is not necessary that the wording be absolutely finished and perfect, nor must drawings, if any are submitted, be the work of a finished artist, so long as the idea is fully conveyed.
>
> The author's name should not appear on the copy submitted, but the name and address should be written on a separate sheet of paper and enclosed in a sealed envelope and this envelope, together with the advertising copy suggested, enclosed in a larger envelope and addressed to "Advertising Contest, *The* TELEPHONE REVIEW, 15 Dey Street, New York City." As the communications are received, the copy and the envelope will be given duplicate numbers. The suggestions will be passed upon by a Committee, composed of members of the Advertising Department, and the really good suggestions will be submitted to three judges for final decision as to relative merit. The names of the winners in each contest and of those who deserve honorable mention will be ascertained after the awards by opening the envelopes corresponding in numbers to the advertising suggestions selected. Such names will be printed in *The* TELEPHONE REVIEW.

The next contest will close on the 15th of May, and the awards of $10, $5 and $3 for the best suggestions received up to that date will be announced in the June issue.

As this monthly contest will be continued indefinitely, there is plenty of time to work up an idea, if you have the germ of one in your mind, but send it in as soon as you can, so that you can go to work on another one.

Digitized by Google

Set the Example

ONE of the greatest efforts which the Company puts forth is to get the public to acknowledge the operator's repetition, or correct her when she repeats a number incorrectly. The Company often advertises something like this: "Did it ever occur to you that the operator repeats your number so that you might correct her," etc.?

Just as telephone employees should set the example in the matter of telephone courtesy, so also should they set the example in the matter of repeating call numbers, but we find, upon inquiry, that this latter is one point on which employees are habitually weak. It is just as important to acknowledge the operator's repetition of a number when it is correct, as to correct her when she makes a mistake. She is trained to expect some kind of an answer, and it would be of great assistance to the Traffic Department if employees would follow the practice (and induce their families and friends to do likewise) of saying "thank you," or its equivalent when the operator repeats correctly, as well as correcting her when she does not, and don't forget "THE VOICE WITH THE SMILE WINS."

The Right Spirit

IN forwarding to us a communication which appears elsewhere in this issue, the contributor writes: "I am beginning to feel like the 'old subscriber' or 'constant reader' who contributes regularly to his favorite newspaper."

This feeling came to him only by experience, and we recommend it to all our readers.

When all look upon the magazine in this light and contribute to it in this spirit, we shall certainly have the finest magazine that was ever printed.

The Telephone

MAJESTIC wonder of the age,
Pulse of the Nation's busy strife,
Wired intelligence thee we own,
Inanimate, yet full of life.

No mortal tongue can speak thy worth,
Boon to the human race;
Unique thy mission, here on earth,
Annihilator of time and space.

Hail! Hail! Thy wondrous powers blending,
Uniting man to man by one vast tie,
Until that day shall dawn,
Thy service—Universal.

—GEORGE H. ESLER.
Evening Manager, Newark District.

Telephone Secures Access

"JUST why should a call on the telephone be deemed important enough to break up the average personal conversation?" asks the *Denver Republican*.

"Most men will cut a talk in two on getting a telephone summons and will turn at once to the instrument instead of telling a clerk to have the telephone caller wait or to call up later. Is there something hypnotic in the ring of the telephone, or is it the glad uncertainty that the one who uses the wire will be brief, while the personal caller may talk on forever?"

The answer to the above is simple. Business men realize that the telephone is their most valuable employee and have learned by experience that they cannot afford to neglect its summons. Psychology and not hynotism is involved in the telephone call, and the business man prefers to answer it at once rather than run the risk of losing a customer. They also do this, just as other people do, because they themselves use the telephone only when it is necessary, and they give the "calling party" credit for the same degree of intelligence. Regarding brevity, we know from past experience that when an important matter is concerned, live business men use the telephone for long as well as short conversations and *will listen* just as long over the telephone as face to face to a man who has something worth saying.

Concerning Estimates

THE opportunity for what might be made a very lively and interesting discussion in and outside of these columns is afforded by a contribution which we print from O. W. McIndoo, an Engineer in the Plant Department, Syracuse, on the subject "Why the Estimated Cost on a Job Should Be Correct."

There is often an idea that a thing will cost what it must, regardless of any estimate or appropriation.

An estimate should be an absolute basis for guidance and an absolute guide to be followed, allowing, of course, a margin for variation.

Isn't the Construction Man just as much entitled to have the estimate criticised on the basis of results, as the Engineer is to have the results criticised on the basis of the estimate? The balance between the two, when they are put on the scales, is the test of both of them.

This applies not only to plant and construction work, but to all other kinds, including clerical, if you please.

The Latest in Shopping by Telephone

IN installing their new grocery department, R. H. Macy & Co. realized the extent to which shopping by telephone may be carried to the advantage of both the store and its customers, and they are advertising as follows:

If you live in Manhattan, register your telephone number, we will call you up each day, with no expense to you, at any hour previously arranged and book your order.

Another illustration is that of James Butler, who has a chain of grocery stores throughout New York City and in a number of suburban towns. He advertises as follows:

Kindly furnish us with your home telephone number and say what hour and the days you wish to give your regular order. We will register same, take your order punctually over the telephone and give it proper attention. There is no charge for this service.

The theory underlying these and other advertisements that really are too numerous to mention, is concisely and forcefully presented in an advertisement of the E. M. Harrison Meat Market in Montclair, as follows:

Planning a business is vital to its success. Doubling our sales and decreasing our running expenses are an evidence of the right kind of planning. We believe the telephone is a very important factor to consider in planning a business.

BECAUSE—

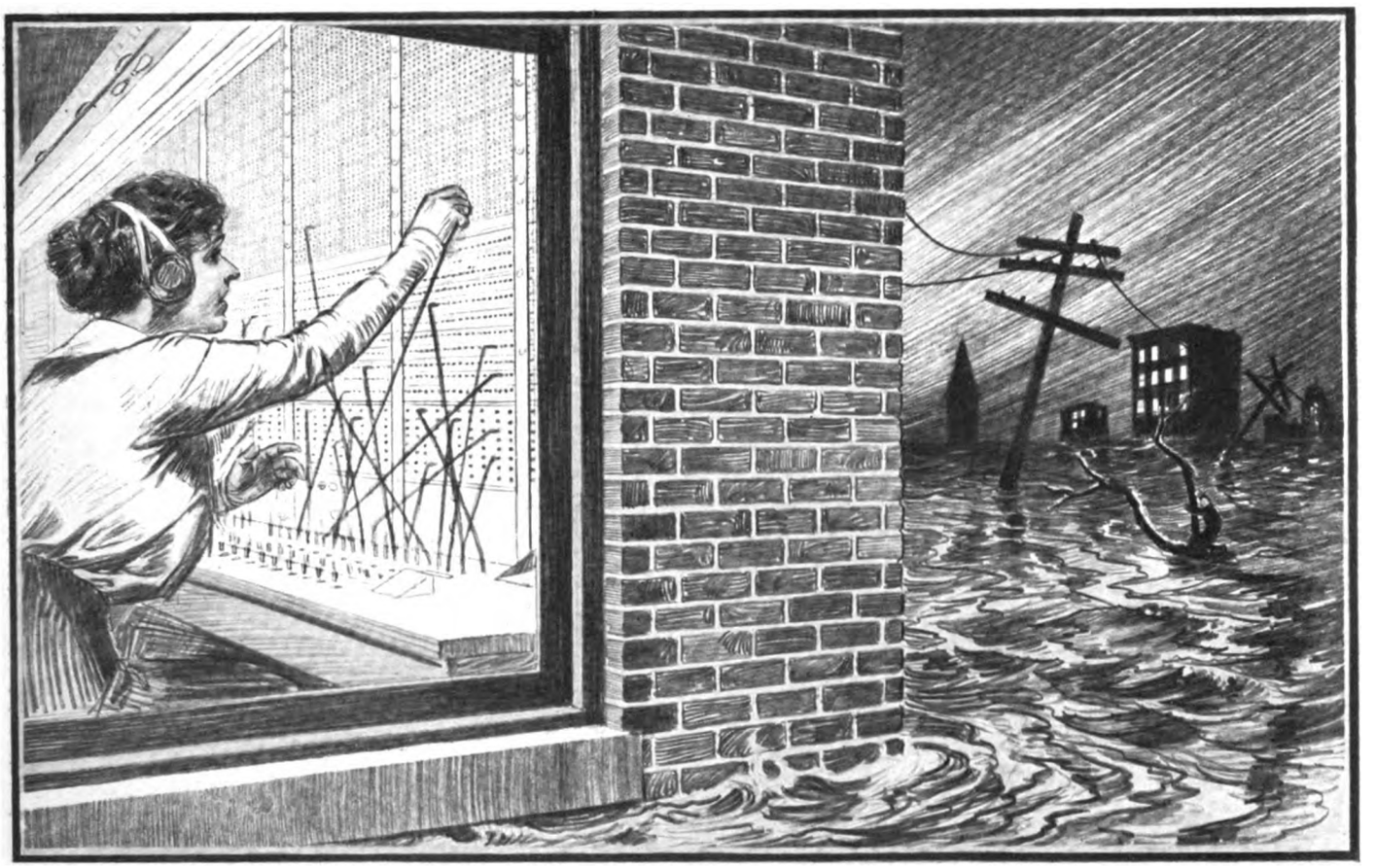
It saves your time and ours.
It brings you in direct contact with the store.
If you call us, you have not increased your cost of living.
If we spend the time of a solicitor, horse and wagon for four hours daily to do things the OLD way it is costly and wasteful.
To serve you efficiently we maintain a modern telephone order department that will give you the best possible service.

ASK OUR CUSTOMERS.

While all three recognize the value of the telephone in reducing the high cost of living, Macy's and Butler undoubtedly have made a logical and important addition to the practice of cultivating telephone order business, which is getting to be quite general, and that is, not to wait for the customers to call them up.

Reproductions of any of our cover designs, for framing, will be sent to any address upon receipt of a 2-cent stamp each.

Digitized by Google



"AS LONG AS THIS FOUNDATION HOLDS I'LL STICK TO MY SWITCHBOARD."
(Acknowledgments to the *Baltimore American.*)

Operators and Linemen Bravely Face Death by Tornado, Fire and Flood

Remarkable Heroism, Endurance and Loyalty of Telephone Employees During the Recent Devastations

THE whole world has been staggered by the calamity that has befallen the people in the Middle West and parts of N. Y. State by tornado, fire and flood.

Bold and strong, in towering proportions among the thousands who risked their lives in giving aid, stand the telephone operators, the linemen and all the forces of the telephone companies. All about them, the mightiest works of man lay shattered and in ruins, and they alone were able, out of the wreckage, to re-establish the lines of communication and send warnings, and appeals for help, and news to the world outside. And this they did regardless of the peril to themselves.

The men and women whose deeds we shall narrate, and others equally brave and daring, some of whom are as yet unknown and may forever be unknown, were not picked for the parts they played. They were just the average. Who shall say but that every one in the telephone ranks, when his or her time came, would have done as well? We believe they would, and with the same spontaneous abandon of self for the sake of others. Little as they thought of their own safety, not at all did they think of fame and glory. They did not work as if their lives depended on it, but with a higher, nobler purpose,—because the lives of others depended on it. Therefore, theirs is the greater glory.

The Tornado

FIRST came the tornado on Easter Sunday. More than 150 victims perished in Omaha and its environs, and similar storms in Indiana, Iowa and Illinois brought the total death list up to nearly 250.

In the words of a newspaper, "A balmy spring day, typical in its fleeting glimpses of the sun and threatening of showers, developed into a driving rain-storm and then, in a twinkling of an eye, into a devastating monster of annihilation." Another paper says, "Standing out from the gloom and blackness of the calamity is the high courage shown by the girls in the Omaha telephone exchange. They remained on duty as though nothing had happened, while the wind roared around the building and the city was drenched by the torrential downpour."

Mr. Hall's Description

The following is an extract from a report of C. E. Hall, Vice-President and General Manager, to C. E. Yost, President, Nebraska Telephone Company, March 25, 1913:

"WEBSTER Exchange in the center of the storm's pathway stood the shock well. Its windows were blown in and the glass globes from the chandeliers fell on the heads of the operators and crashed on the keyshelves. The girls themselves were blown away from the board. This was only for a moment, however. They returned at once, some bruised and many cut and bleeding. Thus injured they worked on through all the trying hours.

"While their locker room was filled

Digitized by Google

with the dead, dying and badly injured; while the sharp, quick commands and tramping feet of the 'Regular' troops resounded through the building as they marched in and out of the public office which they took as their headquarters; while the darkness quickly settled down o'er the unlighted town and through the broken windows came the cries of injured, the wails of the forsaken and the hoarse shouts of the rescuers; while the knowledge and thought that possibly some of their associates would never return and that their own dear ones were lost or their homes destroyed, through it all the poor, bleeding hands nimbly flew, the question 'Number, please?' rang out clear and distinct. Only when they had to say 'They don't answer' did their faithful voices falter. To-night, 48 hours after, they are still there, some because they have no other homes now and prefer their duty to the ministrations of friendly hands and hearts, some because of the call of duty only, some because they would not be satisfied otherwise.

"The injured have all been taken away, the windows repaired, the girls all carefully attended and their wants supplied. All positions are filled. The brave little Chief Operator and all her girls, save four who are still missing, keep watch to-night at 'Webster,' the most fatal spot in the long list of such places in the wake of the great tornado."

OPERATORS ON DUTY AT "WEBSTER" EXCHANGE, OMAHA, MARCH 23, 1913.

All the operators shown were on duty except Miss Christenson (indicated in the picture by the numeral 2), who arrived one hour after the tornado struck; she thereafter remained on duty for thirty-six hours and was then taken away against her protest.

Miss Larson (indicated by the numeral 1) was the Chief Operator on duty at the time the storm broke and faithfully remained on duty for twenty-four hours thereafter.

Top Row—Misses Alice Stribling, Mary Christenson (Day Chief), Grace Chipman. **Second Row**—Misses Vesta Shirley, Ruth Alright, Alice Cody. **Third Row**—Misses Beulah Maxwell, Etta Larson (Night Chief), Gertrude Coe, Margaret Mengies, Addie Elliott. **Bottom Row**—Misses Anna Hansen, Cordelia Boon, Irene Hough, Johanna Schneider, Gertrude Larson, Gladys Hartman, Agnes Tiernery, Beth Bessekist.

Other Incidents of the Storm

THE name of the "brave little Chief Operator" is Miss Etta Larson.

Day operators who were at their homes during the storm, walked many miles to the exchange to assist the night forces. Misses Rose Gillette and Myrtle Peats, who reside in Florence, walked all the way. Miss Elsie Wheedler was on her way to the exchange when the storm struck. She was carried nearly a block by the terrific gale of wind. She was caught between two trees and rendered unconscious. Some time later she was found by two policemen, who had to chop away portions of the trees to free her from her perilous position. After resuming consciousness, she walked to the telephone office and worked through the night and following day.

Miss Clara Schesehy left her home in East Omaha after the storm for the telephone office. She walked all night through the devastated section of the city and got to work at 5 o'clock Monday morning. Misses Minnie Bottker and Helen Elliott, also walked to the telephone office.

Mrs. May Gamble, a former telephone operator, left her 2-year-old baby and walked to the central office to offer her assistance. She worked for twenty-four hours without intermission.

In describing the situation in Omaha, the *Denver News* says:

"Hello Girl an Angel. The telephone bridged the distance yesterday for anxious relatives and friends in Denver of those in the stricken city. Cool heads and lightning fingers handled messages to and from anxious relatives."

So rapidly and effectively did the repair-men work to restore the almost totally wrecked outside plant, that within three hours after the storm passed, most of the city could be reached by telephone.

Down in Murfreesboro, Tenn., which also felt the cyclonic disturbance, Miss Mabel Hill and Miss Minnie Yarwood listened to the roaring approach of the mighty wind, and amid the crash of falling walls which shattered the windows of the room in which they were working, they remained at their switchboard, warning the citizens of the town and telephoning to fire companies and citizens of surrounding towns for help.

The story is the same throughout all the vast territory affected by the storm.

Tornado Followed by Flood

BEFORE even the full extent of the calamity was known, a fresh horror burst upon the world, and the end is not yet. As the waters rush onward to the Gulf, carrying death and ruin in their wake, no one can foresee what may befall.

For two days and more, large and popular areas of the Middle West were without communication with the outside world, except by telephone, and at intervals these lines of communication were broken by the devastating floods. There were no railroads which could bridge the water gaps.

A vessel sinking in the midst of the Atlantic would be no more helpless without wireless than this region would have been without the telephone.

In Indiana, the State was practically one vast sea. Every stream, almost without exception, was over its banks and whole towns were swept away. The floods did their worst in Ohio, however, although portions of other States have also been inundated.

Digitized by Google

These conditions developed courage and resourcefulness on the part of the telephone employees of a different character from those called forth by the tornado, which soon passed. For days the waters engulfed the land, and whom they spared were threatened by famine and disease. Whatever the emergency has been, however, the manliness and the womanliness of the personnel of the telephone companies were equal to it.

Conditions Caused by the Flood

For forty-eight hours Miss Katherine Gilbreth, chief operator in the telephone exchange in Peru, Ind., remained at her post, marooned by from five to eight feet of water. She and her operators fished crackers and a can of ice cream out of the flood and subsisted on the meager rations thus provided. With no knowledge of the fate of her mother and sister, Miss Gilbreth used all her time in trying, by means of a spare lineman's test set, to get information from Peru and the surrounding country wherever part of a telephone line would give back reply, so that when she finally would be reached she would have information for inquirers. A lineman reached her exchange over roofs and improvised bridges a short time before the water receded enough to allow her to learn her relatives were safe. When *The Record-Herald* reached Peru with its special wire, the first communication with the main part of the city, Miss Gilbreth, told a graphic story of the existing flood conditions and the needs of the city.

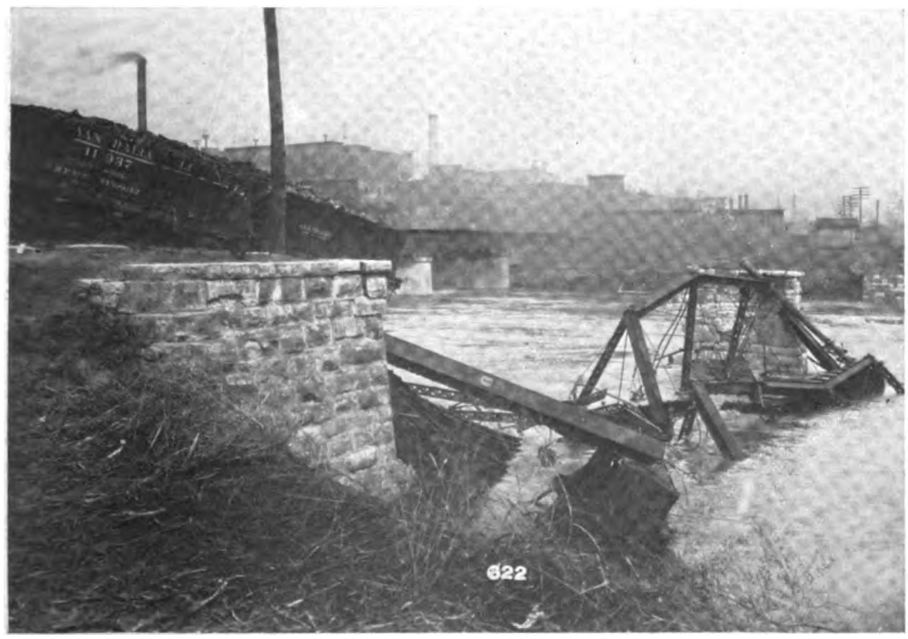
Miss Mabel Ellison and Miss Gladys Kauffman, of Anderson, Indiana, two slips of girls, remained on duty while their building was threatened with destruction. Frequently they called the attention of firemen to places that were ablaze on the roof below their window. A half block away 300 gallons of gasoline were in momentary danger of exploding, adding to the peril of their position.

THE "WEBSTER" EXCHANGE USED AS A TEMPORARY MORGUE, AND WHERE MANY OF THE DEAD AND INJURED WERE TAKEN JUST AFTER THE TORNADO IN OMAHA.

Mrs. Mary Cummings, Night Telephone Operator, Danville, Ill., was the first to discover a fire in the rear of a nearby building and gave the alarm. The Central Office became so full of smoke that the operator could not see the board, but she remained at her post warning residents of impending danger, until she fell on the floor and was carried from the building in a swoon.

The first information received by the Gates Mill people concerning the rise of the river was at about 4 o'clock Tuesday morning, the 25th, from Mrs. Harry Robbins, telephone exchange operator. The water backed up in the grocery of Greenway & Son. This short-circuited the wires and gave the signal in the telephone exchange across the street, which woke Mrs. Robbins. She went downstairs to investigate and found her cellar flooded. Instantly she telephoned to scores of people in the town, warning them of the flood.

As a result of dynamiting the south levee at Shawneetown, Ill., the entire city was under water from ten to thirty feet deep. As soon as the water inside the levee equaled the stage of the Ohio, the militia permitted telephone girls and the citizens' committee to enter. The telephone exchange is on high ground, and the girls kept flooded Shawneetown in touch with the rest of the world.



A SCENE FROM THE FLOODED DISTRICT IN OHIO—THE VANDALIA BRIDGE.

The Heroine of St. Mary's

The *Evening Sun* (N. Y.) pays this tribute to the telephone operator at St. Mary's, Ohio:—

When the Grand reservoir broke and submerged the town the crying, immediate need of the situation was to get news of the

Digitized by Google

SCENE AT DAYTON, OHIO.
Telephone Cables Were Often the Only Means of Escape for Men, Woman and Children Marooned in Their Homes.

plight of the people there to the outside world.

The streets were rivers, buildings began to collapse and disintegrate; masses of wreckage bumped and shouldered by; the place was one whirlpool; the rising tides invaded the telephone building; every one else fled; but this girl kept her nerve and stuck to her job. By the time the water was swirling about her knees she had succeeded in getting Fort Wayne on the telephone and making her appeal.

That is all we know about her. Upon that one tableau of the girl in the otherwise deserted building, conquering her fears and sticking to her job while the waters crept higher and higher about her and the current snatched for her life, the curtain falls again. Did she escape? Was she drowned? We do not know. We do not even know her name.

Named or nameless, she is of the company of the world's heroic souls.

Telephone Cables Only Means of Escape

The telephone cables in many places afforded the only means of escape from drowning. In Dayton, for example, a man placed his three-months' old baby in a meal sack which he suspended around his shoulders, and, after assisting his wife from their house top to the level of the telephone lines, they made their way to safety, followed by other refugees.

Governor Cox is a Dayton man and was anxious to get in communication with the city. "I was about to give up in disgust," he is quoted as saying, "when a slight feminine voice replied 'Hello. I'm the only one in the building. What can I do for you, Governor?' 'Tell me about the loss of life, and the Dayton News Building,' I answered anxiously. 'There goes a big business block crumbling into the street. Your basement is flooded and the presses are covered with water.' 'You had better leave before it is too late,' I told her, but the connection was gone."

Bell, the Intrepid

It was John A. Bell, of the Central Union Telephone Co., in Dayton, who, marooned in a business block, kept Governor Cox informed every half hour of conditions in the stricken city and delivered orders to boatmen who rowed to his window. For thirty-six hours he kept his place at the telephone, and his cheerfulness never deserted him, as witness his "Good morning, Governor; the sun is shining in Dayton!"

A Sandwich and Half an Apple

Here is the story of Ruth Louise, a night telephone operator in Dayton, as reported in the press:—

"I left home at 5.55 Tuesday morning, with the idea of helping those who we thought were in terrible distress on account of the dam breaking. About three blocks from the building we were overtaken by water which reached up to our shoe-tops. This lasted about a square. It was still pouring down rain. I reached the office about 6.50 a. m., and in all the excitement started right to work, with the switchboard all lighted, and warned the people who had not the slightest idea that there was even a

(Courtesy *N. Y. Evening Mail.*) THE LINEMAN, *Photo by Charles Rosen.*

Digitized by Google

flood. About 8.40 we were terribly surprised to look out of the window and see that we were flooded and had no chance of getting out at that time, but we were still working with the intention of helping those whom we thought in more distress than we. In order to get food, a line was thrown over to the Y. M. C. A. building, with a pulley attachment, which would carry a bucket. This was four o'clock in the afternoon. One small bucket was all we were able to obtain until Wednesday, and one sandwich and half an apple was all each of the 25 girls and 10 men received."

Heroic Wire Chiefs and Linemen

M. D. Stohl, Wire Chief at Dayton and C. D. Williamson, Wire Chief at Phoneton, kept Dayton in touch with the outside world. Stohl reached the Dayton office just before the flood broke Tuesday morning. The waters came with such suddenness that all batteries and power were put out of commission. He made his way to the roof, "cut in" on the line to Phoneton, and reported to Williamson, whose batteries were still in condition. Over this meager equipment, messages were exchanged.

Stohl remained on the roof of the building, suffering the discomforts of the pouring rain and low temperature, so that the waiting world might have some word from Dayton.

Much of the news from Dayton was obtained by linemen from Phoneton who followed the telephone poles as far into the flooded district as possible and would "cut in" at every opportunity and send back word of conditions. They also rendered invaluable aid in the way of rescue work. Two telephone men, one by the name of Anderson and the other by the name of Faries, are mentioned in the newspapers as doing heroic work of this kind.

Miss Carrie Y. Hosier at Phoneton

Phoneton, being an important telephone centre, naturally bore the brunt of most of the hard work. The Chief Operator there, Miss Carrie Y. Hosier, gave the world the first detailed tidings of ill-fated Dayton. At her desk in the Central Office she sat for seventy-two hours, assisted by her five faithful operators, surrounded by fourteen feet of water.

The Touching Story of Miss Arline Barnell

Miss Arline Barnell, Chief Operator at Zanesville, with three other girls, was marooned in the Central Office. She described over the telephone to a newspaper with graphic detail the extent of the tragedy around her. The streets were roaring with seething waters filled with debris and human beings tossed about by the swift currents; fire was adding its fearful menace to the havoc wrought by its enemy, and help in their distress seemed impossible, yet she could say:

"I am pretty tired to-night, but I must keep on working. There are four girls here and we haven't rested since day before yesterday. But we don't think of ourselves when we remember the poor dead women and babies down there under the water. It's little enough we can do, but we'll do it as long as we can stay awake."

The next day, after help had come, she said: "Isn't everybody kind and good when people are in trouble like we are? I guess we have a lot to be thankful for!"

Forgetful of all she and her companions had done for others! She closed the conversation with: "Did you know the stars are almost out to-night?"

Such as these

" . . . wear a truer crown
Than any wreath that man can weave them."

Fishing for Supplies

At Lewistown, O., the telephone operator worked in four feet of water. At Newark, O., the telephone operator remained at her post until she was rescued with the greatest difficulty.

At Miamisburg, Ohio, a dozen telephone girls stuck to their posts, warning the residents of their danger, while they, themselves, were cut off from escape and marooned in the exchange above a grocery store.

One of them conceived the idea of cutting through the floor, and thus obtained a supply of canned goods and other foods from the murky pool below. On this they subsisted for two days.

The flood extended into Pennsylvania. That Sharon was saved from an appalling disaster is due to the heroism of Martha Falcon, an 18-year old telephone operator, who remained at the switchboard and gave a general warning, which enabled hundreds to flee to the safety zones of the hills, while the enormous and substantial buildings of the steel mills withstood the avalanche of water and the crashes of the battering ram of debris.

Relief Work Aided by Bell System

INSTRUCTIONS were issued to telephone employees to anticipate authorization for any action in the use of facilities necessary to relieve the situation, and to afford any assistance to authorities or relief committees of different communities.

Dramatic and heartbreaking as the calamity has been, it has served to demonstrate as nothing else conceivable could do, the wonderful value of the great Bell System, with its lines reaching almost every city, town and village in the country from many directions. With its enormous reserve plant, and with its standard equipment and standard methods, the Companies were enabled to send material and supplies from one part of the country to another, and transfer men and women to render help where needed. Lines that were down and could not be repaired were instantly replaced, because provision had been made for just such emergencies.

When a line failed, instead of isolation and despair, the operator was there to find another, and if all were gone, the wire chiefs and their forces quickly supplied one. Picture what it would have meant to the desolated regions that have been victims of cruel fate, if at the switchboards there had been no operators! They were indeed angels of mercy.

Sometimes the lines would work only intermittently, but the quick-witted operators would find new routings, and somehow the messages of life and death would course over the sentient wires.

Nearly 2,000 linemen responded to the call of duty, and day and night, water-soaked and weary, through rain and snow and bitter cold, they worked with feverish intensity to restore the lines that were down.

Floods in New York State

WHILE there has been no great loss of life, the rise of the waters in the Hudson Valley has destroyed millions of property of the citizens of the State, and brought out acts of heroism among our own associates in the New York Telephone Company.

Two acts of bravery by linemen that are almost identical in their character, occurred in Amsterdam and Glens Falls, and displayed a daring worthy of veterans.

The Brave Lineman at Amsterdam

The storm cut off the telephone connection between Amsterdam and South Amsterdam. During the night of March 28, a telephone lineman slipped a cradle seat over the cable leading across the Mohawk River Bridge, and made the perilous journey over the gap, taking with him lines connecting with service wires on the Amsterdam side of the roaring torrent. His name is F. Salado.

Howard DeRidder the Hero of Glen Falls

Howard DeRidder, a young lineman at Glens Falls, electrified a crowd of more than 500 persons who had gathered at the base of Glen Street Hill to watch the flood sweep down the Hudson. The bridge had been swept away, carrying with it three

Digitized by Google

Where Howard DeRidder Performed His Feat. Bridge at Glens Falls was Washed Away and DeRidder Carried a Cable Over the Gap Riding on a Messenger Wire.

arms of open wire trunks and two cables. The telephone foreman realized that communication must be re-established, but he hesitated even to ask for volunteers. Still, the work had to be performed, and seeing the necessity, young DeRidder volunteered to take the chances. Deliberately climbing a pole, he suspended his cable buggy to a 7-strand steel messenger wire less than half an inch in diameter, and in instant peril of a horrible death crossed the chasm more than 250 feet in width, with the raging Hudson rushing below him. When he completed his task he descended the pole on the South Glens Falls side as coolly as if he had done nothing unusual, while the crowds which lined the banks voiced their enthusiasm by loud and prolonged cheers.

Miss Edith Rivett, of Glens Falls, night operator for the New York Telephone Company, was requested to leave her post by the Chief of Police, but she pluckily stuck, informing the officer that as long as she could remain in the building she would do so.

The entire central and northern parts of the Hudson Division were affected, interfering with telephone service in many ways. Bridges to which our cables were attached, were carried away. Pole lines were washed out, and cross connecting boxes in basements were submerged over a wide area. In some places even more serious damage occurred.

The river at Albany, which reached a height of approximately 23 feet above normal on Friday, March 28, had been rising ever since Easter Sunday on account of steady rain, but until 2 o'clock Thursday morning no unusual trouble was experienced. The first report of trouble at this time was innocent enough, as the Watervliet night operator called the Wire Chief and reported several lights in the Albany-Troy toll cable. The cable failed gradually due to a leak of some kind in the Watervliet office manhole and by Thursday noon was under 8 feet of water. By daylight Thursday morning the Albany-Troy trunks were practically all out and it was necessary to connect Watervliet-Troy circuits by cutting cable and splicing temporarily to the two old submarine cables still in place. Our toll business between Albany and Troy was hampered by insufficient trunks on Thursday, and it was not until Friday afternoon that the full number, with several additional trunks, were given to the Traffic Department.

The cable men and splicers who worked almost continually from early Thursday morning in attempting to restore this service deserve more than a word of praise.

Typical Acts of Loyalty

A young lady who stated that she had worked at Rochester some time ago, called the Troy Chief Operator on the telephone and offered her services, which were accepted. She has been married and living in Troy for two years, and when she learned through the newspapers of the load of business which the Telephone Company was carrying, she could not resist lending a helping hand.

Another Troy operator was sent home in a boat, after working all day. When her dinner was over, she returned to the office and insisted on working until late at night, although nearly exhausted.

In North Troy and Waterford, and to some extent in other places, the operators had to go to their work and return home in boats. This will explain the reference to the boat in the following communication from Miss Dorothy M. Tiffany, the day operator at Waterford, who has been an operator only since last December:

Miss Tiffany's Experience

"AT midnight Wednesday the people in Waterford began to get frightened at the rising water and call after call came in for information regarding the various dams above them, but we had been informed by the Albany officials that there was absolutely no danger in that capacity, so we reassured them the best we could. All day Thursday the traffic was ceaseless, demanding the absolute attention of two operators for the one hundred fifty-six telephones, and even then the calls were too much for us to handle.

"At noon Watervliet was lost to us, then we discovered that the circuit to Troy and Albany had gone, too, thus shutting off the toll connections, excepting when we could get lines through the office at Cohoes and North, which was rare, because of their own heavy traffic. At this new development the subscribers began to grow more frightened, and the calls for later information concerning the Spier Dam began to come in. The streets near the river's edge became flooded, and people began moving to their second floors, yet no danger was expected from the water. Near five o'clock it was rushing about five feet from the toll bridge floor, and boats

Presbyterian Church, Waterford, mentioned by Miss Dorothy M. Tiffany—The Collapsing of the Church Endangered the Telephone Central Office.

Digitized by Google

were hurried to the streets nearest the river.

"As night approached, rumors that the Hudson continued to rise steadily began to float about the village, and when the electric and gas lights left it in complete darkness, a small panic took place. Many were without lights of any kind, and for a while the telephone office was lighted only by candles.

"Later a lamp was procured and we settled down to work for the night, knowing that sleep was impossible. The calls continued to come in up to midnight, simply for information as to the river's height, then a call from Fourth Street, one block above the site of the office came in, telling us that they had been obliged to take in four families who had abandoned their homes, and were preparing themselves to move to the top floor. The watchman at the Cluett-Peabody Bleachery on Peeble's Island called us to say that the water had flooded the boiler-room, and was still rising. Still we did not think of any real danger. Sometime after one a subscriber on Third Street asked for help because of the overflowing of a creek at the lower end that was pouring into her cellar and threatening the first floor. People began to move their horses to the livery stable where the water could not possibly reach, and the tramping of feet gave evidence that people had taken to the dark streets, with only lanterns for lights.

"Every half hour we called the Bleachery to find out how the water was there, and between four and five o'clock the watchman said that he was surrounded, with no avenue of escape. By this time people in the village were begging us to send them boats, so we sent the one that had been tied at our door to the street above. A half hour later the water had risen to our steps, yet we continued to reassure the people that there was no possibility of peril.

"About four-thirty our trunks to Cohoes gave out, leaving us only North and Watervliet. The fright became awful, and people were screaming for us to send them boats. The only sound anywhere was the splashing of water as the boats went up and down. Then the first glimpse of dawn came. The relief was great—the people began to grow calmer, and one of the operators left the board to look out into the street. I talked with the watchman at the Bleachery while she was gone, asking if he needed help, but he didn't seem anxious, although no one was there to help him escape. Then someone knocked on the office window and yelled, "The Presbyterian church is collapsing!" I gave the warning to the other operator, but she did not appear alarmed, but went on operating. A minute later the door bell rang and a man screamed, "For God's sake, run for your lives out of the back door!" We rang North saying we had to go, blew out the lamp and fled. The settling of the big brick church two doors below us was like the quiver of an earthquake. I managed to reach the alley at the back, and the other operator was thrown over a fence into the next yard by one of the equipment men before the front and one side crashed in, crushing one side of the house between it and the office, leaving the tower leaning toward the house.

"The alley was full of half-clothed, frightened people, one a helpless invalid from the house that was struck. After an hour or two things looked better, so we went back to the office, and the other operator tried to handle a few of the many calls that were coming until we were told to leave or be put out, as the house was unsafe, with the tower still slanting toward it. So we collected the records and left, our nerves pretty well shattered by this time from incessant work and fright. We had but little outer wearing apparel, but the people on the street took us in and fed and warmed us. We had begun to take hope again when the town hall bell gave warning that Spier Dam had gone, and a squad of men ran from door to door, telling the people to fly to the hill for safety.

"The expression on all faces was one of dazed terror, yet there was no panic. Women and children were helped across the flooded streets first, and the little town of Waterford moved up to the only hill around them, a hill with the Mohawk river behind it. The sights were terrible. One whole town expecting to be swept to death at any moment climbed in dumb bewilderment up the hill; frightened horses were running wild; all automobiles and coaches were pressed into service, and men drew the carts that had no horses. Dying people were carried out into the cold air, little children were running, unlooked after, in the wrong direction, and people in whose houses the dead lay, were forced to leave them. And the Hudson rushed on, only one foot from the bridge floor.

"On the West Waterford hill, the residences, steamer houses and churches were opened to the people, but nearly everyone remained in the street, looking down into the flooded village, just waiting to die.

"After one hour of terror, a contradictory report came regarding the big dam, but no one dared to go back. The little stores were bought out, and the lunch wagon took up its stand, on the Main street, and the people were fed. Hours of grim waiting passed, then driven by the cold, family after family began to straggle down into the village again. The town hall was opened to them, and the wealthy were glad to share with the poor.

"Toll calls were handled again, through Cohoes from a news room in Waterford, the only line that connected the village with other towns, by the equipment men. Then the

BROADWAY, ALBANY, N. Y.
Smoke in Distance is From Fire Engines Which Were Attempting to Keep Cellars on State Street From Flooding.

Digitized by Google

water commenced to go down and night came to Waterford again."

The Same Unselfish Bravery Everywhere

THE plant representatives who rendered such assistance in Waterford at this time were J. F. Colloton and W. Greed, of the Switchboard Intallation force, who were working in the vicinity and volunteered their services.

At Fort Edward it was rumored that the dam above the village was liable to be carried away and plans were made to remove the switchboard cable from the cellar of the building to the top of the first floor, so that the switchboard could be moved up above water, if necessary. The dam held, but the water rose to within a foot of the floor level. The operators worked on, and those not on duty volunteered in case of need.

Here is what the *Fort Edward Advertiser* said on October 17, 1912. Its words ring especially true at this time.

"There may be more pretentious telephone exchanges than we have in Fort Edward, but nowhere at any time can be found more obliging, painstaking and accommodating operators than we have in the local telephone office. The position is a trying one, but our 'hello' girls are always courteous and only aim to give the public the very best service."

Too much cannot be said in praise of the co-operation, willingness and unselfishness displayed by the employees in both the Traffic and Plant Departments in the Hudson Division. This was particularly true in Albany, Rensselaer, Troy, Watervliet, Cohoes, Glens Falls, Hudson Falls, Fort Edward, Amsterdam and Schenectady, where the demands on these two departments of the Company were greatest. Operators who were off duty came trooping into the offices, while those who were there stayed on. Several operators in Albany were allowed to go to their homes for lunch, and automobiles were provided to take them. The girls were instructed that the machines would call for them in half an hour. Some of them ate their meals in a hurry and left for the office before the cars returned.

One operator, whose home is located in the flooded district and who had the day off, was rowed to the office and worked all day. In the evening her father offered to take her home in a boat, but she refused and worked all the evening, and then insisted upon staying all night, that she might be within call if needed.

Telephone the Main Dependence

The work of restoring service and preventing trouble was rendered all the more difficult by the failure of nearly every electric, gas and power plant. Street car lines and railroads were temporarily out of service in many places, and automobiles could not be used satisfactorily until late Friday night, as roads were impassable.

Of course the mails also were delayed, and thus the telephone became practically the sole means of communication between different parts of the same cities as well as with the outside world. Emergency engines in many instances, however, enabled the service to be continued, though in some cases, power was obtained from other points.

Taken From Rear Window of Fort Edward Central Office. Water is Within One Foot of Level of Switchboard Room Floor.

In Troy the water entered the basement terminal room Friday morning, and was kept down by a bucket brigade and section hand pumps until late Friday night, the men bending to their task with a will that never faltered.

At Amsterdam, 80% of the service was restored in 24 hours. The chief operator, ill with tonsilitis, came to the office to encourage her force, and most of the operators, regardless of hours of duty, stayed to relieve their co-workers.

Miss Eleanor Brown, a former operator, offered her services, which were gladly accepted.

In North Troy, an operator who lives in Waterford walked by a circuitous route to the North Troy office in the morning, because the bridge from Waterford to North Troy was impassable and there was no car service. She went down one side of the river to Cohoes, a distance of four miles, arriving at the office practically on time. She reached the Cohoes office exhausted while returning to Waterford by the same route and was taken to her home in a carriage.

Another girl returned to duty from her vacation before it expired, and worked day and night.

Mother of an Operator Volunteers

The mother of the chief operator at "Main" could not resist the temptation to help, so she spent two days in the office, assisting the regular matron to feed the girls,—and it was no small task.

The "West" chief operator was ill with pneumonia, but she insisted upon coming to the office, and remained until she was forced to go home.

WEST END OF BROADWAY, TROY, N. Y.—TAKEN FROM WINDOW OF JOINT TELEPHONE-TELEGRAPH OFFICE ON RIVER STREET. WATER FLOODED CELLAR, BUT DID NOT REACH MAIN FLOOR OF OFFICE.

Digitized by Google

On the 27th, Albany had the highest calling rate in its history. Over one-quarter million calls were handled during the 24 hours ending at midnight that night. A normal day's business is 90,000 calls.

Honor to Whom Honor

The *Albany Argus* said editorially:

"If there is preference to be given in praise bestowed upon the public service corporations for service rendered under the most trying conditions, it probably belongs to the telephone company. This service enters more intimately into the affairs of the people than the other two (electric light and street car lines) and the intelligent grasp of the situation and the splendid executive ability in organizing and directing their forces, displayed by Mr. Anderson of the Traffic or Operating Department, and Mr. Powley of the Plant Department, are worthy of the highest commendation. . . . It is the popular thing to rail at all public service corporations these days. It is simply justice to give credit to even public service corporations, when such credit is conspicuously merited, as it was during the recent freshet."

As the *Literary Digest* says:

"The magnitude of the catastrophe cannot be conveyed by figures. The loss in life, whether of hundreds or of thousands, cannot even be estimated until the waters go down, while the damage to the property of railroads, manufacturers, farmers, and city dwellers will mount far into the millions and score of millions."

So great was the "National calamity," to quote his words, that the President of the United States held himself in readiness to go to the scene in the Ohio district and take personal charge of the relief work.

Appeals for help met with instant response, and millions of dollars were contributed in money and supplies. Just as the telephone was the means of letting the calamity be known, so also was it the principal means of raising funds. Committees were organized and never met, except over the telephone; thousands of dollars were raised by them without leaving their desks.

What would have happened without it in the hands of the modest heroes and heroines that we have mentioned and thousands like them? It is beyond all thinking.

A Review of the Telephone, Supply and Foreign Business of the Western Electric Co.

IN the *Western Electric News* for March, Mr. Gerard Swope, Vice-President of the Western Electric Company, gives a review of the corporation's commercial activities since 1884, illustrating the growth and development by several charts and devoting most of his paper to the telephone department of the business.

From 1884 to 1907 the business of the company grew steadily, but owing to the panic of the latter year it fell off materially for the two years following. Since then it has risen rapidly, and for the year just ended the company's sales amounted to approximately $72,000,000, the largest year in its history. This great business was secured from almost 40,000 customers all over the world. He says: "The sweeping statement can be made that there is no country where telephones have been introduced in which Western Electric telephones are not used to a greater or less extent." China and Turkey are among the latest nations to enter the list. A few years ago the Western Electric installed the first common battery telephone exchange in Peking, and just before the outbreak of the present war one was placed in Constantinople.

"It is difficult for us in the United States to realize that the telephone is just being introduced in such large cities as those above mentioned," declares the writer.

When we reflect that the number of people who have telephones in the most progressive countries of Europe is much less in proportion than in the United States, "it must be remembered that in these countries the telephone is owned and operated by the Governments, and on account of the large demand being constantly made upon them, particularly by the army and navy, telephone facilities for their citizens receive almost the last consideration." In Japan at present there are approximately 140,000 applicants who desire telephone service, for whom the government has not provided facilities. "In the United States, on the other hand, a private company has owned and operated the larger part of the telephone utilities and it is due to its far-seeing policies that the telephone has been put within the reach, not only of the citizens of limited means in the large cities, but even of the farmer isolated by miles from his nearest neighbors."

Mr. Swope further tells us that "the Western Electric Company has houses and factories, not only in the United States but in Europe, Asia, and other parts of the civilized world." In some foreign countries, it does not do business directly, but is allied with companies located there, and the total business of the Western Electric and its allies in 1912 would be over $90,000,000.

The writer continues: "The larger part of our telephone business is with the Bell System. . . . In addition, we have sold to 9,000 different telephone companies in the United States. . . . One of the very interesting developments of the business in the last few years has been the hundreds of thousands of telephones sold to farmers and farmers' mutual companies; these have served to bind the isolated farmers to each other and to the nearest community."

During the past year the Western Electric Company has furnished enough telephone switchboards to give service to over 1,000,000 new subscribers. Almost a million subscriber sets and desk stands have been sold. Approximately 10,000,000,000 conductor feet of cable have been turned out, or enough wire to girdle the earth 80 times. Millions of feet of lumber have been used in making telephone apparatus and switchboards.

A comparison of this company's telephone business for 1900, 1906 and 1912 shows that from 1906 to 1912 the business was practically stationary, but that 1906 is several times greater than 1900.

"In the last few years in order to make work in mines less hazardous, telephones have been introduced. We are equipping many mines in the United States with telephones, and mines in South America and other parts of the world have also become interested in this development," says the writer.

By careful estimates, the Western Electric Company is enabled to plan ahead for expected business. At Hawthorne, Illinois, it has a warehouse specially adapted to handle millions of dollars' worth of merchandise. In addition it has about thirty houses throughout the United States. Mr. Swope informs us that "the Western Electric Company now enjoys the distinction of being the oldest electrical company still in business in the United States under the same name."

Digitized by Google

New York, Past and Present

How the Telephone Has Kept Pace With the Wonderful Development of the Great Metropolis

By F. H. BETHELL, Vice-President

Paper Read at the 143rd Meeting of the Telephone Society of New York, March 18, 1913

TO BEGIN with, I want to present to you a view of New York City that visitors seeing things from the elevated seats of a sight-seeing automobile, known to the unregenerate among you as "rubber neck" wagons, do not get.

Let's go back just three hundred years, which, considering the age of the world, is not a long time, and see what New York was then and, incidentally, find the origin of the often-used expression, "Well, it beats the Dutch!"

The Great Financial Centre

Anything that beats the Dutch wins, as, behold, in 1609, Manhattan Island was turned over to the Dutch by its Indian owners, who received therefor $24.00. Today—(quoting from a recent Sunday edition of the New York *Sun*)—

"New York pays taxes on eight and one-quarter billion dollars' worth of property—about six times that of the next wealthiest city.

"New York is the financial heart of the United States. To and from it flow the money and the credit of the country. Surplus funds come here for investment, and from here are sent to the furthest corners of the most distant States to relieve temporary stringencies and to make possible the prompt handling of the nation's crops and the products of the mines and factories. New York's 154 banking institutions, with capital and surplus of $582,000,000, have annual clearings of $95,500,000,000—the ciphers are right, ninety-five and one-half billion dollars—*twice as much as the remainder of the United States combined.* In effect, the entire world's printed and coined money passes through the New York banks many times in the course of each year.

New York's Enormous Commerce

"We of the United States consume more than $1,500,000,000 worth of imports annually. Of this vast amount of goods *more than one-half enters through the port of New York.* We sell to the outside world $2,000,000,000 worth of goods each year, nearly one-half of which is shipped to New York.

"One hundred and nine steamship companies serve this immense commerce. It would require a fleet of 3,500 ships each the size of the Mauretania to carry the exports and imports that belong to New York City.

Thirty Thousand Factories

"In New York at the present time are about 30,000 factories, making it by far the most important manufacturing city in America. These factories employ 700,000 individuals. From New York's factories are turned out each year products valued at more than $2,000,000,000.

"Clothes for an army of 5,000,000 men are made in New York and dresses for an equal number of women. To bedeck this great host, more than $500,000,000 worth of finery is manufactured.

A Billion Dollar City

"In every sense of the word, New York is a billion-dollar city. Its debt, now $1,037,811,718.31, is greater by

F. H. BETHELL,
Vice-President, N. Y. Telephone Company.

many millions than that *owed by the United States.* The National debt, as of October 1, 1912, was about $965,000,000. This does not include non-interest bearing paper such as greenbacks or gold and silver certificates issued on deposits of coin and bullion.

Five Great Cities in One

"New York really embraces five distinct and great cities in one, and, in addition thereto, has a metropolitan district, which makes it the world's most interesting and, in some respects, greatest municipality.

"Manhattan is equal in population to Chicago.

"Brooklyn is larger than Philadelphia.

"The Bronx is larger than Detroit.

"Queens has outgrown Minneapolis.

"Richmond is the equal of Dallas or Salt Lake City.

"The outside metropolitan district has a population equal to that of *Boston, Baltimore* and *St. Louis* combined.

New York Compared With London

"The City of New York has a population of 5,173,000, as compared with 4,522,961 in the administrative county of London. The Metropolitan district, embracing the territory within a radius of twenty miles, contains a population of more than 7,000,000. Greater London has about 7,200,000 inhabitants.

"Every two years New York adds to itself a city as great as San Francisco."

New York's Telephones

Let me go further than the *Sun* and tell you that—

There is just one State in the United States within which there are more operated Bell Telephone Stations than there are within the City of New York, and that State is, of course, New York State itself. There are more operated Bell Telephones in New York City than in the entire territories of the New England Telephone Company and the Providence Telephone Company combined. There are 100,000 more operated Bell telephones in New York City than there are in the entire territory covered by the Southern Bell and the Cumberland companies—a territory embracing the States of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. And yet there are those who make comparisons between telephone rates charged in New York City and rates charged in Grand Rapids, or Scranton, or Terre Haute, putting them out as proof that the rates charged here are too high.

Developing the Business

A few years ago, when I was a salesman in the Commercial Department, known then as Agents in the Contract Department, some changes were made in the company's relations with its Pay Station Agents. These changes necessitated the rewriting of every pay station contract in the Boroughs of Manhattan and the Bronx. I was placed on the team selected for the

Digitized by Google

work, and as a member of that team I went over every part of the territory from the Battery to City Island.

Later, detailed to sell private branch exchange service, I came in contact with the large users of the service—the railroads, express companies, insurance companies, banks, wholesale houses and hotels. In those days I came much in contact with Plant and Traffic employees, as those private branch exchange installations, some of them, required close study on the part of all departments. I did not appreciate then, nor did I appreciate later, when in charge of the department now doing such splendid work under Mr. McCulloh's able management, the greatness of the work being done by the men higher up—the officers of the company.

A Band of Builders

I do not know that I can comprehend now all that those men did. Its like is without parallel. That band of builders composed of the lamented Mr. Cutler, Mr. U. N. Bethell, Mr. Carty, Mr. Thurber, Mr. Walter Brown, Mr. Stewart, Mr. Sherwood, Mr. Allen and others, not only built, maintained and operated a telephone plant to meet the requirements of the time, but to meet the requirements of all time in a community that has grown and changed so rapidly that the whole world has looked on and wondered.

The Greatest Achievements

Mr. Arnold Bennett, in discussing our telephone service and our lighting service, said: "It seems to me that the brains and the imagination of America shone superlatively in the conception and ordering of its vast organization of human beings and machinery, and of the two combined. By them I was more profoundly attracted, impressed and inspired than by any other non-spiritual phenomena whatever in the United States. For me they were the proudest material achievements and essentially the most poetical achievements of the United States."

"The proudest material achievements and essentially the most poetical achievements of the United States." That, gentlemen, is just exactly what they are, and the men to whom the honor and glory are due are, the great majority of them, still among us building and continuing to build in the manner which so completely won the admiration of the keenest foreign observer who ever wrote of America and its institutions.

Twenty Years Ago

Let's look at the past again. We will not go back three hundred years this time, but, say, twenty years. That will be far enough for us to understand, if we do not now understand, the magic of the touch of the great leaders of our forces whose names I have given you.

A "Prediction"

The first time I ever addressed a Telephone Society I dared to do what, with the eleven years' experience I have had since, I think I would let alone. A paper read by me in New York City on the night of April 7, 1902, was the first paper devoted to the work of the Commercial Department to be presented to your society. I remember it very well. It had to do with the development of the telephone system of New York City, with a "Prediction for the Future." Fools are said to enter where angels fear to tread. I shall not go further with that, but you will get no predictions from me tonight. Most of the rain that has fallen in New York in the past fifteen years fell on that night of April 7, 1902, yet about fifty brave men were in the room down in Thames street when Mr. Gherardi, the president, called the meeting to order. Because of the fact that there were so few of you there, and because in those days we had no TELEPHONE REVIEW, I am going to say again tonight some of the things, things historical in their nature, that I said then.

Growth of the Accounting Department

About eleven years ago, it was then —(it is now twenty-two years ago)— I commenced sorting toll checks in the auditor's office of the old Metropolitan (now the New York) Telephone Company. At that time there were two other young men employed in that particular work—one of them, Mr. Tom Smith, is probably here tonight—and there were seventeen persons all told in the auditor's office. There are now —that is, there were eleven years ago —186 employes in the auditor's office, of which number about 90, I believe, handled toll checks. Today the total number of employees in the Accounting Department as reported by our General Auditor, Mr. Wiley, is 1,024, of which number approximately 450 are employed in Manhattan and the Bronx.

A Mountain and a Mole-Hill

I remember that when I came over to New York from the Newark office of the then New York and New Jersey Telephone Company, the then General Manager, now the President, of the New York company warned me that the work in New York compared with the work in Newark would be as a mountain to a mole-hill.

I am quoting now from my paper of eleven years ago:

"Think of the changes that have come to the New York company since it was the mountain—1891. Then the company had in service about 9,000 stations. On June 1, 1899, there were 7,521 stations in Manhattan and Bronx, and if I remember correctly there were five central offices—Cortlandt, Spring, 18th, 38th and Harlem, all in Manhattan. There were no central offices in the Bronx. The population of the two boroughs at that time was about 1,200,000; the ratio of stations to population was about 1 to 160. During the five years following, there was an increase of 2,544 stations, making on June 1, 1894, a total of 10,065, or about one to every 150 of the population, which was then about 1,500,000. During these five years, 79th street, Columbus, Broad, Franklin and Tremont were opened, and on June 1, 1894, the 10,065 were distributed as follows: Cortlandt 3,062, Broad 1,043, Spring 1,050, Franklin 1,040, 18th street 1,173, 38th street 1,367, Harlem 475, 79th street 433, Columbus 316, Tremont 14.

"I present these figures only to show how the development has been brought about in every part of the city. Think of Harlem with only 475 stations. Harlem, until Tremont was opened, covered all the Bronx and much more of Manhattan than it covers now.

First Message Rate Schedule, June 1, 1894

"You see what the business amounted to on June 1, 1894. Every subscriber's station was on a flat rate basis and the average annual value per station was about $150. There were 1,027 pay stations in service then earning monthly about $17.50 per station. On this June 1 the first message rate schedule was put in force.

"The minimum rate for direct line service under this schedule was $150 for 1,000 local messages or less; the rate for 1,200 messages was $166 and for 2,400 messages $240. The old flat rate of $240 was, of course, in existence at that time, and the only purpose the subscriber could have in contracting for 2,400 messages was to secure the refund for unused messages, should fewer than 2,400 be sent. For two-party line service, the schedule adopted provided a minimum rate of $100 for 700 local messages or less. The rate at all other points was $20 less than the direct line schedule. The period we are reviewing now—the five years beginning June 1, 1894, and ending June 1, 1899—was nothing if not an experimental period. On November 1, 1894, or five months after the adoption of the first message rate schedule, a direct line rate of $120 for 700 local messages was introduced.

"This didn't seem to quite fill the bill for on March 27, 1895, the number of messages at the $120 rate was increased from 700 to 1,000, the rate

Digitized by Google

for 1,200 messages dropped from $166 to $132, and the rate for 2,400 messages from $240 to $195. Though reductions were made in the schedule, it was deemed unwise to put the minimum direct line rate lower than $120. This schedule stood, however, for less than two months, for on May 16, 1895, a rate of $90 for 600 local messages on a direct line and $75 for 600 local messages on a two-party line were offered.

"The schedule as modified seemed to be about right, a great deal of new business was secured under it, and it was allowed to stand without change for over two years. On July 1, 1897, some slight changes were made at points up in the schedule, but the minimum rate was let stand at $90 and it remained at $90 until June 1, 1899.

Rates Adopted June 1, 1899

"This brings us to the end of the second period and we find the number of stations 31,241, a gain in five years of 21,176. The population had in the meantime increased to about 2,000,000, making the ratio of telephones to population about 1 to 64. This was an interesting period. During it the private branch exchange became a distinct feature in the scheme of furnishing service. Telephones were installed to a considerable extent in residences, the residence stations being, on June 1, 1899, about 10 per cent. of the whole number. The flat rate stations began to disappear, the number of such stations at the end of the period being about 10 per cent. of the total stations in service. It was on June 1, 1899, that the present schedule, beginning at $75 for 600 messages and ending at $228 for 4,500 messages on direct line, and beginning at $60 for 600 and ending at $135 for 1,800 messages on two-party line, was adopted. On November 1, 1901, a schedule for *residence service* only was adopted. This schedule for direct line service begins at $66 for 600 messages, being $9 less than the business rate. The rate continues $9 less than the business rate at all points in the schedule under 1,500 messages; at 1,500 messages there is a difference of but $6, at 1,800 a difference of but $3 and at 2,100 the rates become the same. The two-party rate also runs into the direct line schedule at 2,100 messages. So you see it makes no difference what the grade of service is if the number of messages is 2,100; the rate is $153."

Predicted and Actual Figures

In the paper from which I have quoted, written eleven years ago, I made a prediction as to what the number of telephones in Manhattan and the Bronx would be on January 1, 1903, 1904, 1905, 1906 and 1907. My prediction and the actual number connected were:

	Prediction.	*Actual.*
January 1, 1903	102,500	102,479
" 1904	137,500	129,628
" 1905	173,000	153,211
" 1906	200,000	184,876
" 1907	225,000	230,701

I said then, when the ratio was one to sixty-four, that the ratio of telephones to population in New York City would some day be about one to five. That statement was seriously questioned, but today the ratio is 1 to 8.3, and we are still gaining.

Development in Westchester

Referring to the Westchester Division, I said:

"In the Westchester Division we now have a fair development. There were 7,289 stations in service up there January 1 last and contracts have been taken for 677 since that date.

"The population of that territory is increasing very rapidly, and the number of telephone stations will continue to increase for a long time to come. We have on our canvass lists of available non-subscribers over 6,500 names, and names are being added all the time."

Note, we had about 7,300 stations connected with 6,500 additional in sight; a total of 13,800. Today, Westchester boasts over 40,000 stations.

Manhattan and the Bronx Since 1902

Back to Manhattan and the Bronx for a brief review of what has happened in the eleven years that have elapsed since 1902.

The business rate of $75 for the right to send 600 local messages has dropped to $48. Substantial reductions have been made at every point in the schedule, and the number of stations has increased from about 75,000 to about 375,000.

The New York Telephone Company Today

Other great changes have been brought about. The New York Telephone Company, operating then in only two boroughs of the great city and two counties outside of the city, with one town in Connecticut, now not only operates in the whole of New York City, but in the entire State of New York, plus northern New Jersey and a small part of Connecticut.

Seven Great Districts

For efficiency and economy in the conduct of the business, the territory is divided into seven great districts. These districts, with the number of stations in each, are as follows—the figures are as of December 31, 1912:

	Number of Stations.
Manhattan and Bronx	369,123
Westchester	40,185
Long Island	126,105
New Jersey	129,742
Hudson	62,431
Central	72,886
Western	85,262
Total	885,734

That is the New York Telephone Company—the biggest and the best operating telephone company the world has ever seen.

Our Company's Policy

Its policy has always been to serve the public honestly and efficiently, and it is for you and for me to see to it that the grand structure put up by the founders and dedicated to the public service is held intact and that the honors still to be won will compare favorably with those that have been won.

Origin of Central Office Names

I fear, sometimes, that in the preparation of papers for the Telephone Societies I go too far in presenting statictics. Now, before I close, I am going to turn to another side of the business which has always been of peculiar interest to me.

I have always liked to read of old New York, and sometimes it seems that one who studies the development of the great town finds some kind of a connection between the old and the new, as, for instance, the land upon which our Dey street building—our principal office—now stands was in colonial days the site of a livery stable, the particular stable at which the jumpers and runners so much favored by the gentry were stabled.

Those of you who see something of interest and means of amusement in a study of this kind must watch with rather more than passing interest the methods followed in the naming of central offices.

In New York City there are more than sixty telephone central offices, each office bearing a name known in our vernacular as Exchange designations. I have been told that the late Mr. Pullman, while actively engaged in developing his car service, paid a good round salary to one of his daughters whose duty it was to find names for the cars as they were constructed. The method followed in the naming of cars, while always interesting, is nothing as compared to the nomenclature employed in naming central offices. I have never been permitted to take an active part in the selection of central office designations, that being one of the ancient and honorable functions of the Traffic Department, but native

Digitized by Google

curiosity has prompted me at times to inquire into them.

Chelsea

As, for instance, the Chelsea Exchange, serving a busy section of the west side of the great city, gets its name, as you all know, from the old village of Chelsea. Let me tell you something of the origin of Chelsea. One Captain Clarke, a veteran of the French and Indian wars, built a house in the country, one mile to the north of Greenwich village, intending to spend there the declining years of his life. He called his house "Chelsea." That name appealed to him because it was the name of a place in England where many old soldiers spent the last days of their lives. Isn't it of interest to telephone men who live in or near this great city to know something of its early history, and especially, possibly from a sentimental viewpoint, of the bits of history that control in the naming of central offices?

Consider Chelsea! The old house, built by Captain Clarke, was occupied next by Benjamin Moore, who married Captain Clarke's daughter, Charity. Benjamin Moore was the Episcopal Bishop of New York; he was for ten years the president of Columbia College, and it was he who administered the last sacrament to Alexander Hamilton after the duel with Aaron Burr. The old bishop died in the house known as Chelsea, and his son, Clement Moore, became its owner. Clement Moore was a professor at Columbia, but we know him as the man who wrote (and he wrote it for his children in this old Chelsea house) a poem, the first line of which is, "'Twas the night before Christmas."

Just three generations from the time the house was built, the section of which it was the centre became a part of New York City.

Naturally, I am not going to take up here tonight the entire city in the way I have taken up Chelsea, but in closing I am going to give expression to my great admiration for "Traffic" for the manner in which they have handled this really important matter of finding suitable central office designations.

What Regulation Taught One Regulator

HON. JOHN B. OLMSTED on his retirement as a Public Service Commissioner, Second District, State of New York, delivered an address setting forth impressions gained during his term and stating frankly several changes in his opinions since he took up the duties of the office. We reproduce a portion of his address as follows:

I came into office with decided leaning towards the anti-corporation view of public utility questions. Some of my good friends among the corporation lawyers in Buffalo were kind enough to say that I was too much of an anarchist to be of much use as a commissioner. Want of knowledge as to the precise point involved I have found in many cases to be the principal cause of the prejudices I then entertained. Experience has taught me that there is another side to these questions, and one not lightly to be dismissed.

* * * * * * * * *

Managers Conciliatory

I have changed my mind also as to the attitude of most corporation managers towards the public. I had expected to find it recalcitrant and objurgatory, which is a Latinized and "more tenderer" way of saying that it was made up of kicks and damns. I have found it almost uniformly, when expressed in the presence of the Commission, conciliating and willing to abide by the results of a fair hearing. The difficulty with me has been not so much in getting the corporations to do what I thought was right as to determine in my own mind what under all the circumstances of certain cases was right.

I am fully aware that this is not the popular view of public service corporations, nor do I wish to be understood as having discovered wings on the shoulders of the managers thereof. I say that a better knowledge of the conditions under which their business is carried on brings one to a more just appreciation of some of the difficulties under which they labor. I know well that there are many—very many—particulars in which the service they are rendering may be improved, as I know well that there are very many particulars in which the business of every man in this room might be improved, if an inquiry into it were started by a commission armed with power. Such a commission would be at once met with the objection that its suggestions required too much of an outlay to carry them out, and would be asked how it proposed to provide the funds for the improvements recommended. Let us be reasonable as well as critical. Let us realize that the management of one thousand men on a street car line is no less difficult than the management of an equal number in a factory, and that there are times when you have to do the best you can with the material with which you have to work.

* * * * * * * * *

Risks of Investment

I have intimated that one great difficulty with certain corporations is the lack of means to carry out the improvements to service which their operating men admit would be advisable and desirable. On this point some figures from our last annual report may be illuminating. Out of 78 steam railroads reporting to the commission in this state, only 27 paid any dividends for the current year. Out of 364 electric railroads, light, heat and power, and gas corporations, 273 paid no dividends. In 1909 it was 237 out of 310, so that conditions are improving some; but the figures are significant. They are contradictory to the general impression that dividends are the foundation upon which all public service corporations are erected, and they have a sobering effect upon an official who starts in with the idea of building Rome—or even Schenectady—in a day.

* * * * * * * * *

I know that these views are not wholly popular, and I know that in certain quarters the idea prevails that a public service commissioner should be pictured with a knot of thongs to lash the sides of all the hated corporations, irrespective of their merits or deserts. In my view that savors too much of "Donnybrook Fair." I like the expression of President Taft, who quietly reminded his hearers on one occasion, as I recollect it, that the phrase "all the people" means just what it says, and that "all the people" included also the corporations, which are made up of people just as much as a municipality is.

Even-handed Justice

The Public Service Commission is organized to hand out justice as near as it can determine it, both to shippers and to carriers, to consumers and to producers, and if it has attained some success in its work of the last five years, it has done so by strict adherence to that view, and not by spectacular brandishings of the "big stick." It has accomplished more good by getting both parties before it, pointing out the strength or weakness of opposing views, and then appealing to that sense of fair play which is inherent in every man, than it ever has by a display of the tremendous powers which the law undoubtedly confers upon it.

Telephone Courtesy

THE Automobile Company of America has distributed to its employees the following circular regarding telephone courtesy.

We are indebted to Miss Ada C. Nolan, of the Rector Exchange, for a copy of it:

The manner in which a person uses a telephone indicates his character to a great extent, and makes either a good or bad impression. And this impression is reflected directly upon the establishment from which such message comes.

It is a pleasure to do business with a house which performs EVERY DETAIL in a clean-cut, satisfactory manner, but it leaves a sting to be answered abruptly or discourteously over the telephone. It is a folly to lose one's temper because one does not get immediate connection. This is rarely ever the fault of the telephone operators, who are nearly always courteous and prompt.

When one is called to the telephone he should respond quickly and the person calling should not be left to hold the wire too long—something decidedly irritating and often unnecessary.

Let us through the whole house strive to excel in satisfactory telephoning.

Deterioration

Uncle Ezra—"Did you see 'Hamlet' at the opera house last night?"

Uncle Eben—"Yep, and I tell you that fellow Shakespere is certainly falling off. It wasn't near as good as his 'Comedy of Errors' that I saw twenty years ago."—*Puck.*

Digitized by Google

Water

Few Persons Drink Enough Pure Water; It is of the Utmost Importance in the Preservation of Health

BY DR. ALVAH H. DOTY
Medical Adviser of the
Employees' Benefit Fund Committee

Contaminated Water Breeds Disease, and Its Source and Method of Distribution Should be Subject to Careful Inspection

The ocean, which covers more than three-fifths of the surface of the globe, is the natural source of our water supply. From it arises a continuous stream of vapor to the atmosphere to be recondensed and precipitated in the form of rain and snow. The far greater portion of this returns to the ocean. The part falling on land either forms rivers, lakes or pools, or penetrates the earth and becomes the great underground water system upon which we so largely depend for drinking purposes. It is both interesting and important to know something of the course taken by the water after entering the ground, and the combinations it forms as it descends.

A section of the earth extending downward for a considerable depth would show the soil arranged in various layers or strata. The significance of this, so far as it indicates the formation and age of the earth, is well known to geologists. It is also of great interest in connection with the underground water system, for it explains the manner in which it is collected and distributed.

The layers referred to are variously composed of sand, gravel, chalk, clay, etc. Some of them, for instance clay, are practically impermeable, i.e., water cannot pass through them, while on the other hand, sand is easily penetrated. Therefore, water in its descent passes without difficulty through the latter substance, and upon reaching a layer of clay or some other impermeable stratum, is directed along until it finds an exit somewhere, probably in the form of a spring, or as a supply to some body of water, or it may remain below until an outlet is made for it in the form of a well.

The strata are not uniformly arranged and are at various levels and frequently curved, sometimes forming large underground basins. As a result, water upon entering the earth may reach impermeable strata at different depths, and supply either superficial or deep wells.

Various forms of contamination are carried into the ground by the surface water. Many of these are filtered out by the soil, some are destroyed by oxidation, and some by certain forms of bacteria which live upon organic matter. For this reason water becomes purer as it goes further down, and we may expect to find a better and safer supply in a deep well than in a superficial one.

Certain gases confined in the earth may sometimes force underground waters to the surface, although this is usually brought about by the pressure of the water from behind in its effort to reach its own level, for this supply frequently has its origin in mountainous regions, or where there is considerable elevation, and may follow along impermeable strata, sometimes at a considerable depth, and appear at the surface through natural or artificial means many miles away.

During the transit of water through the earth, certain chemical changes take place. The soil is rich in carbonic acid, and the underground water holding this gas in solution dissolves out various mineral substances contained in the strata with which it comes in contact. In some instances the presence of these salts is so pronounced that the water is rendered unfit for general use, although in this state it is often valuable for medicinal purposes.

The most frequent combination is with lime and magnesia, particularly the former. When a comparatively large amount of it is present the water becomes "hard," i.e., the lime or magnesia combines with the fatty acids of soap and prevents the prompt formation of lather, therefore, "hard" water is neither satisfactory nor economical for bathing or other domestic purposes. While there is practically no danger in drinking it, it may not be as acceptable as some other kind. Water which contains but little or no lime is called "soft," and is far better and pleasanter for general use. Not infrequently, heated water, which probably has its origin deep in the earth, reaches the surface and forms what are commonly known as "hot springs." These various conditions have led to the establishment of many celebrated resorts, or "water cures," throughout the world.

If it were possible to collect rain water above the point of contamination in the air, it would be the purest and softest supply we could obtain, but as it falls to the ground some form of pollution always takes place, for it washes out the air. In the country it is comparatively small, and does not materially affect its value, but in cities and manufacturing towns where the air is constantly charged with poisonous gases, the products of offensive trades, and the usual contamination of these places, rain water, unless purified, becomes unfit for drinking purposes.

In sections where there is no general water supply to draw from, such as springs, rivers, lakes, etc., and where but little can be secured from underground sources, owing to the peculiar formation of the soil, rain water is eagerly collected. In emergencies it is often caught upon canvas or rubber cloths, and for general use large ground areas with cemented floors and underground storage cisterns are sometimes employed, although the common method of securing it is from roofs of buildings. As a rule but little attention is given to the cleanliness of these surfaces, although it is a matter of great importance provided the water is used for drinking purposes. This protection may be secured in a simple manner by having the waste pipe from the roof so constructed that it can be quickly disconnected from the storage tank at the beginning of the rain, and allowed to discharge over the ground for a few minutes, in order that the roof may be cleaned, and then reconnected with the cistern.

Careful attention should be given to the construction of storage tanks. They ought not to be made of wood, which rots and leaks, nor should they be composed of lead, zinc, or iron, for the "soft" water readily dissolves these metals and renders the water unsafe for drinking purposes, furthermore, poisonous gases and other forms of impurities will gain entrance into the underground tanks if they are not properly constructed of brick or stone and cement, as they do into cellars having defective walls. Although underground tanks do not freeze in winter, and while the water which they contain may be kept cool in the summer, they cannot be so easily inspected and cleaned, a very important consideration.

Rain water barrels which are commonly found outside the house in the country, are usually unsanitary, as well as defective, besides they are common breeding places for the mosquito, for as a rule they are not properly covered. This will also occur in underground cisterns, therefore, the openings of these receptacles should be protected by wire netting.

Spring water in the country is valuable for drinking purposes provided inspection indicates that it is practically free from contamination. It is usually cold, and sparkling, and besides, receptacles are not needed for its storage. In towns there is always danger of contamination, for although the supply may come from miles away, it is sometimes superficial and receives impurities from the surface. Spring water should be protected against contamination at its exit by stone or cement walls and floors. In addition, a pipe may be introduced into the opening, not only for protection, but to direct the water to its exit more effectively.

Lakes under proper conditions furnish a very satisfactory drinking supply. The water is still, and the organic matter and other forms of impurities which it contains settle to the bottom more quickly. There is considerable truth in the saying that lakes "purify" themselves. Where lake water is used for drinking purposes, there should be a most rigid and constant patrol of its shores to prevent the discharge of sewerage or other forms of filth into the water; besides, the intake should be some distance from the shore to prevent contamination still further. The safety of this form of water must always be seriously questioned if there are built-up communities along the border of the lake.

The river water of inhabited regions, which is commonly used as a general water supply, is very apt to be dangerous and unfit to drink except at its head, where it receives its supply from the mountains or from tributaries which are not contaminated, or before it receives the waste and sewerage of towns. The ease and economy with which municipalities can draw water from these sources has led to many serious consequences so far as general infection is concerned.

River water, used by large communities for drinking purposes, is generally filtered. Briefly speaking, the method usually employed consists in passing the water over

Digitized by Google

filter beds, which are composed of three or four feet of gravel, on top of which is a layer of fine sand of about the same depth. Impurities are removed as the water passes down through these permeable layers to its destination. Still, this system is open to various objections, and cannot be compared with water obtained from other sources some distance away. The ancient Romans were aware of this, for although the Tiber runs through the city, the water supply was brought from distant sources by aqueducts so splendidly constructed that some portions are still in use.

Well water is a common source of supply in the country, and like spring water, is cool and pleasant to drink. Unfortunately, wells are frequently contaminated and often transmit infectious material. This refers particularly to typhoid fever, and partly explains why this disease is more or less always present in rural districts.

Deep wells are less dangerous in this respect than superficial ones, for the water is usually drawn from below an impermeable stratum. While this does not usually occur in a superficial one, however, defective construction will allow surface impurities to reach the interior of deep wells through their walls. Artesian wells constitute an exception to this, for they are bored frequently to a depth of many hundreds of feet to reach below or between impermeable strata where water is held under pressure and escapes to the surface through a continuous tube or pipe, which, if properly constructed, admits of but little danger of contamination. For this reason, artesian well water is with safety often used in built-up communities, although these wells should always be under careful supervision.

There is need of protection about the opening of ordinary wells, and the space immediately surrounding them is often a fruitful source of contamination. The old oaken bucket system, which requires that the well shall be freely open, is anything but sanitary. In its place a modern pumping apparatus should be used so that the opening can be properly closed and protected; besides, the space surrounding the opening of the well should, for a distance of a few feet at least, be graded and cemented from the well outward and downward, and for ten or fifteen feet down the walls of the well should be constructed with brick or stone and cement. A layer of clay on the outside of the well renders it still more safe.

Wells become contaminated and receive infectious matter usually from nearby privy vaults and outhouses, cesspools, etc., through the soil to the underground water which supplies the well. Therefore, in addition to proper construction, a well should not only be placed at the highest practical point, but should be as far as possible from all sources of contamination. The distance cannot be accurately determined, for it depends largely upon the arrangement of the underground strata. However, a careful study of the situation along the lines already referred to should secure sufficient information to place the well fairly out of harm's way.

The presence of infectious contamination is not indicated by the appearance of the water, for the clearest and coolest specimens may contain germs of disease.

Distillation obtains a water which is practically pure. However, this is frequently objected to on the ground that it is "flat" to the taste. Recently, distilling apparatus has been devised, and successfully operated, which also aërates the water. This should provide a very pure and acceptable drinking water and is particularly valuable when the safety of the general supply is questioned.

Sea water also may be distilled and used for drinking purposes. All modern steamships and war vessels are now supplied with apparatus for this purpose and thereby secure an abundance of pure water.

Strangely enough there is but little or no municipal, state, or federal supervision over the sale of bottled water, which comes from every section of the world. We have practically no official knowledge as to its character, the methods of bottling, or the means that are taken to prevent contamination of the receptacles by employees or otherwise, with which we should be familiar. Our information on this subject is confined principally to the advertisements of the various waters, whereas it is a matter which should be under strict official surveillance.

Water, next to air, is most necessary to our existence. It plays an exceedingly important part in maintaining the various functions of the body. It is constantly needed to make up for the loss of moisture from the skin and lungs, and it flushes out certain organs and also preserves the shape and symmetry of the body.

The importance of water in the preservation of health is far from being appreciated, and but few persons drink enough of it. This lack of fluid may lead to unpleasant conditions such as indigestion, torpidity, headache, dryness of the skin, etc., the cause of which is not usually understood.

It is estimated that the adult human being needs two or three quarts of water in twenty-four hours. Probably one-third of this is usually taken in with the food. In addition, four or five glasses of water a day under ordinary conditions would be a fair estimate of what the system requires, although it is subject to great changes, depending largely upon exercise and climatic conditions, for during the warm weather the skin rapidly abstracts large quantities of water from the system which needs to be replaced promptly. Contrary to the general belief, there is no objection to drinking a reasonable amount of water with the meals, although it should not be confined to this time, but distributed more evenly throughout the day.

The importance of water in maintaining proper health requires that the supply shall be as pure as possible. We have already learned in a previous article that to a certain extent the body becomes tolerant of impure air; this same protection exists in connection with water, for there are some forms of impurities in all drinking water which practically do no harm. As a rule, water used in cities is of this quality. The danger is not so much from ordinary contamination, but is due rather to the presence of infectious germs, and it is fair to assume that if there is no unusual prevalence of diseases commonly transmitted by water, the general supply may be drunk with safety. During warm weather and particularly among children, certain impurities in the water will often cause a widespread outbreak of stomach or intestinal irritation. The large number affected and the rapidity with which the malady spreads will usually indicate the source of trouble.

It is rather in small communities and in the country, where no properly organized health protection exists, that each citizen must be alert in protecting his home against improper drinking water. By carefully bearing in mind the way it is collected and distributed, the ordinary means of contamination which have already been referred to, and the necessity for prompt examination if the water becomes in any way suspicious, there should be secured an efficient protection against danger from this source. It may be added that public laboratories usually examine specimens of drinking water free of charge.

There is a practice among those who frequently make short excursions into the country to drink of the so-called clear and cold water whenever they can get it. This is unsafe, particularly where the well is not in constant use. Water from this source should not be used for drinking purposes, unless after careful observation and inquiry, there is reasonable evidence that it is not contaminated; typhoid fever is not infrequently the result of this imprudence.

When there is reason to believe that water contains infectious contamination, there is but one way to render it safe for drinking purposes, provided no other supply can be obtained, and that is by boiling. Simply heating the water to the boiling point is not sufficient for this purpose, for it must be continuously boiled for fifteen minutes in order that all germs which may be present are destroyed. The water should then be cooled and protected against further contamination. In no instance where the water is believed to be infected, should either the so-called domestic filters or agents advertised to purify the water be substituted for boiled water, for they cannot be depended upon to protect, and are often worse than useless.

While boiling renders the water somewhat "flat" to the taste, as the air which it contains is expelled by the heat, and although there are simple means of aëration, for instance, by agitating the water in an ordinary churn or by dropping the water through a tin plate containing numerous small holes, in order that it may be finely divided and better combined with the air, it is safer for a short period at least to drink the water as it is boiled than to employ means of aëration which through carelessness may again infect it, unless some person in the household is appointed to take charge personally of this work and prevent additional contamination.

In connection with the subject of water it is proper that some reference should be made to ice.

It is a common belief that infectious organisms existing in water are destroyed when freezing takes place. This is not true, for some of the organisms survive the reduction of temperature and become active again when melting occurs. For instance, this has been conclusively proven in connection with typhoid fever.

Although ice may be obtained from water sources where there is no serious contamination, it is well known that it frequently comes from bodies of water which receive sewerage directly from large towns. To what extent ice under these circumstances becomes involved it is, of course impossible to determine.

It would seem practical and logical in protecting against impure ice that we should use the kind, which so far as we can ascertain, is most free from danger. Artificial ice is more apt to supply this need, for it is usually made from distilled water and, therefore, should be pure.

Not infrequently it is stated that artificial ice is rendered unsafe by the ammonia used in its manufacture. This is not so, for the ammonia does not come in direct contact with the water, but is confined in pipes and used simply for freezing purposes.

Digitized by Google

Bell Telephone to Its Stockholders

The A. T. & T. Co. Annual Report for 1912 has been issued. Some of the principal features are as follows:

SUBSCRIBER STATIONS:—

A total of 7,456,074, an increase of 823,449, including 344,173 connecting stations. 2,502,627 of these were operated by so-called connecting companies.

TELEPHONE TOLL STATIONS:—

70,000 places, from many of which a telegraph message can be sent, are reached by Bell toll lines. This exceeds the number of Post Offices by more than 5,000, Railroad Stations by 10,000, and regular Telegraph Offices by about 45,000.

WIRE MILEAGE:—

14,610,813 miles of exchange and toll wire, an increase of 1,678,198. These figures do not include the wire mileage of connecting companies.

TRAFFIC:—

26,310,000 connections a day, not including connecting companies,—at the rate of 8,472,000,000 a year, or 59.5% of the total telephone, telegraph and first class mail traffic of the United States.

PLANT ADDITIONS:—

$75,626,929 expended for plant additions, and the estimates for 1913 at $62,000,000. During 1912, $66,705,000 was applied out of revenue to maintenance and reconstruction purposes.

VALUE OF PHYSICAL PROPERTY:—

During the year 1912 careful appraisals of the physical property of all the companies in the Bell Telephone System were made by the engineers, and it was found that whereas the book cost of the properties as at August 1st, 1912, was about $736,000,000, the cost of reproduction as at the same date exceeded $797,000,000. In other words, at the date named it would have cost about $61,000,000 more to replace the actual physical property than the amount at which it was then carried on the books of the companies.

COAST TO COAST:—

Engineering plans have been completed for the extension of four heavy copper wires from Denver to San Francisco, and construction work is to commence as soon as the weather permits.

REGULATION BY COMMISSIONERS:—

In addition to the Interstate Commerce Commission, there are now Commissions with jurisdiction over telephone companies in thirty-three States.

FINANCIAL:—

The gross revenue collected from the public in 1912 for telephone service by the Bell System—not including the connected independent companies—was $199,200,000; an increase of nearly $20,000,000 over last year. Of this, operation consumed $65,200,000; taxes $10,300,000 or 1½ per cent. on the outstanding capital; current maintenance, $31,800,000; and provision for depreciation, $34,900,000. The surplus available for charges, etc., was $56,900,000, of which $14,200,000 was paid in interest and nearly $29,500,000 was paid in dividends.

During the 5 years 1907-1912 the assets of the companies in the Bell System have increased over $311,000,000, while the capital obligations and payables outstanding have increased only a little over $199,000,000. The surplus and reserves have increased from $61,300,000 to $164,200,000, nearly $103,000,000, after setting aside $8,845,000 for the Employees' Benefit Fund.

Digitized by Google

THE GATEWAY TO FLATBUSH.
Soldiers and Sailors Memorial Arch, Flatbush Avenue Entrance to Prospect Park.

Flatbush

E. A. OBORNE
Local Agent, Commercial

F. C. CONDON
Wire Chief

B. T. HUDSON
District Traffic Manager

IN the year 1634, two hundred and seventy-nine years ago, a few sturdy, thrifty Dutch settlers purchased from the Canarsie Indians practically all of that portion of the present Borough of Brooklyn, New York City, now known as Flatbush and Midwood. It is said that the purchase price was ten fathoms of black wampum, five coats, four blankets, two guns, two pistols, five double handfuls of powder, five bars of lead, ten knives, two aprons, two spoons, one-half barrel of strong beer, three cans of brandy and six shirts.

Midwout, ancient Flatbush, was made the county seat of Kings in 1685. In 1819 the seat of County Government was moved to Brooklyn, where it has since remained. Flatbush was politically merged with Brooklyn on January 1, 1896.

Flatbush as generally considered today, includes all of that portion of Brooklyn lying between Prospect Park on the north and Kings Highway on the south, covering approximately three miles in an easterly and westerly direction and formerly comprising the old towns of Midwout and Flatlands.

The Village Has Become A City

While the march of progress and improvement was making Manhattan, Brooklyn and other sections forge to the front by leaps and bounds, the village of Flatbush remained almost primitive in the simplicity of its existence for two and a half centuries, and its re-discovery and awakening have been largely due to the introduction of the Bell Telephone in 1886 and the trolley in 1890.

From the straggling village we find a city in itself—a city grown as if by magic, with a population as large as that of Albany, with up-to-date stores, theatres, banks, churches, and homes, but still suburban and residential in its character. The streets are wide and amply provided with shade trees, many being parked with flowers and shrubbery in the center. The majority of the homes are of the detached villa type, although the signs now point toward a radical change. Many buildings now under construction are modern apartment dwellings equipped with elevator service and Bell Telephone service in every apartment. Many landmarks still stand which are vivid reminders of the past, but these are fast giving way to more modern buildings of the commercial age in which we are now living.

Interesting Landmarks

On the southwest corner of Church and Flatbush Avenues stands the Old Dutch Reformed Church, erected in 1796, on the site of the first church in Flatbush, which was built by order of Peter Stuyvesant in 1654. Another interesting landmark is Erasmus Hall, built in 1786, and now in the quadrangle of Erasmus Hall High School, one of New York City's finest institutions of learning.

Flatbush Avenue

The main thoroughfare, Flatbush Avenue, after leaving Prospect Park, winds a serpentine course in a southerly direction to Flatlands Bay. This street, which was in time past known at different periods as "Main" or "Plank" Road, and Fulton Street is said to have been originally an Indian trail. The settlers built their homes on either side of this trail, which has since become an important artery of transportation leading to the heart of the great metropolis, only five miles away.

An Eye to the Future

As the territory has been undergoing changes from a scattering to a closely settled community, the New

Digitized by Google

York Telephone Company has been keeping pace with and even anticipating the growth by providing ample telephone facilities to meet the requirements of the future.

No better example of planning ahead for modern conveniences during the first steps in the development of a community can be found. No sooner had the promoters decided just what this section should be and laid out their plans accordingly, than telephone engineers made ready for the great growth anticipated. Coincident with municipal improvements, the New York Telephone Company provided for placing wires in conduits under the main arteries of travel. Other public utility companies also planned for the future, and residents in their new homes were supplied with telephone service and other modern necessities without which no community can call itself up-to-date and progressive.

First Telephone Office

The original telephone subscribers in Flatbush were served from the Main Central Office switchboard, then in a building opposite Borough Hall, Brooklyn, until 1886, when the first Flatbush Office was established. This office occupied a one-story frame building located at 747 Flatbush Avenue, and had a 50-line magneto switchboard equipped with twenty-five lines. At that time, however, there were only twenty subscribers in the District.

The Present Exchange

By January 1, 1895, seventy-five stations were in commission, and the Exchange was moved to 830 Flatbush Avenue. A 400-line magneto switchboard was installed in this building, and as new subscribers were secured and stations added, the switchboard was, from time to time, added to until its capacity was 800 lines. Before this time it became apparent that these quarters would soon be too small. A new building of three stories and a basement at 18 and 20 Snyder Avenue was therefore built, and at its opening May 19, 1904, it was equipped with a 2,000-line board.

The basement, and the first or street floor of this building are occupied by the Wire Chief and his assistants. The second and third floors are

ERASMUS HALL ACADEMY ERECTED IN 1786.
Among Those Who Contributed to its Erection were Alexander Hamilton, Aaron Burr, John Jay, Robert R. Livingston, George Clinton and James Duane. This Structure Now Stands Surrounded by the Buildings and Campus of the Great High School Known as Erasmus Hall High School, Which was Completed in 1908. The Old Academy Held a High Place Among the Educational Institutions of This State and Many Students, Afterward Distinguished in Public Life, Graduated From It.

THE OLD VANDERBILT HOMESTEAD.
Flatbush Avenue Opposite Fenimore Street. One of the Few Surviving Buildings Erected in Pre-Revolutionary Times. This Building was First Occupied by John Vanderbilt. His Son, Jeremiah, Subsequently Built a House Adjoining the Homestead on the South, Which was Burned Down During the Battle of Long Island.

DUTCH REFORMED CHURCH, FLATBUSH.
Showing the Type of Development in This Section.

BUCKINGHAM COURT.
Largest Apartment House in Flatbush. Every Apartment Equipped for Telephone Service.

Digitized by Google

INTERIOR BLOCK DISTRIBUTION IN FLATBUSH.
Concrete Posts Carrying Both Electric Light and Telephone Cables.

given over entirely to the Traffic Department.

Largest Installation of Its Type in the Long Island Division

The trunk switchboard in the Flatbush Central Office is equipped for 10,500 subscriber lines, which is the largest installation of this type in the Long Island Division. This office serves both Flatbush and Midwood Districts, and had on March 1, 1913, 6,700 lines and 10,800 working stations. The recent addition to the switchboard, it is anticipated, will be ample to provide for the growth until June, 1916. The station growth during the past year has shown a gain of over 22%. As is usual in offices situated in residential districts, the busy periods are in the morning and evening. A total of forty-five "A" and "B" positions are operated in the morning and thirty-five in the evening.

Traffic Features

As in most telephone districts, Flatbush has interesting features which account for fluctuation in traffic.

While the traffic in all offices was abnormally heavy on the day before Christmas, 1912, due to the snow storm, the percentage of increase in Flatbush was greater than that in any other Brooklyn office. Between 9 and 10 A. M., the traffic was sixty-nine per cent greater than the average for that hour during the month of December, and between 10 and 11 A. M., the increase was ninety-two per cent. The total day traffic showed an increase of sixty-three per cent over the average for the month. The traffic from 12 A. M. to 12:30 A. M. on New Year's day has always been very heavy and it seems as though most of the subscribers in Flatbush wish their friends a Happy New Year at that time. In order to handle this rush of traffic, it has always been necessary to increase the night force greatly just before midnight. This year the regular night force of five was increased to twenty-seven. The fact that the additional operators volunteered for special duty is an evidence of the loyalty and willingness of the operating force.

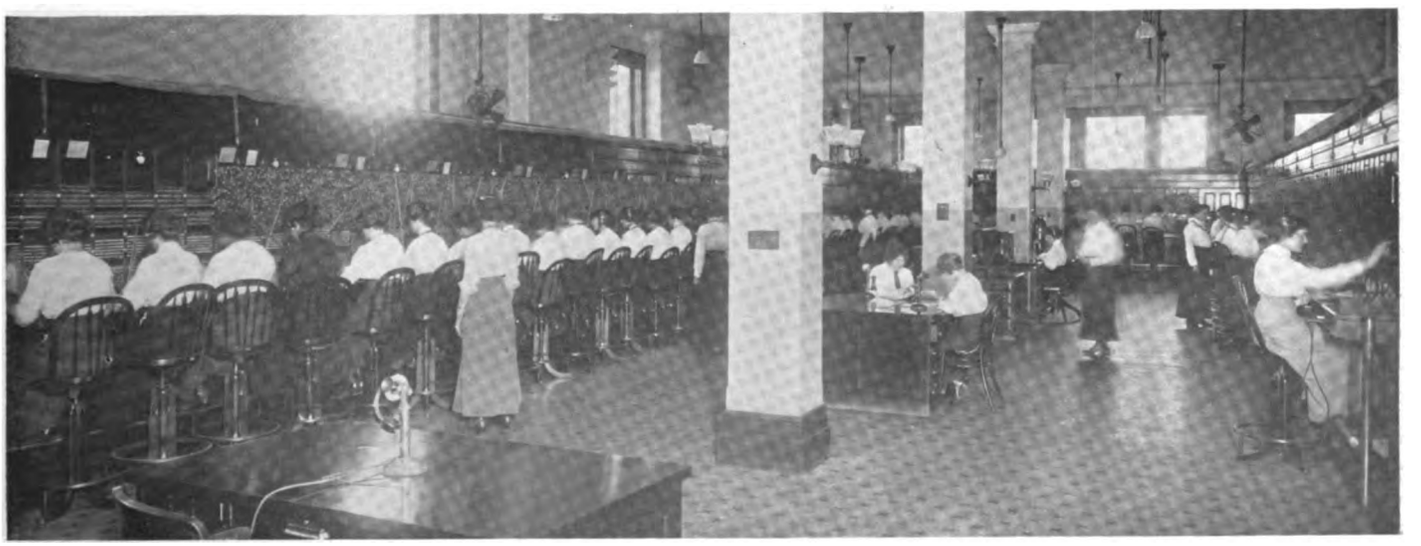
Some Types of Plant Equipment

The Flatbush Central Office and District are equipped with several modern devices, some of which are unique in many respects.

The testing desk in the Wire Chief's office is equipped with a circuit for locating intermittent troubles on subscriber lines. When a line is connected to this circuit, the various operations of the electrical equipment associated with the line are indicated by different colored lamps at the testing desk, by which it can be determined in which part of the subscriber line circuit the trouble exists.

Useful Devices

By the use of what is known as a "party line polarity test," the number of telephones connected to each side of the subscriber line is ascertained. Such an arrangement is very important, particularly when transfer work has been done on lines, as in such cases it is necessary to test all lines



PORTION OF THE FLATBUSH CENTRAL OFFICE OF THE NEW YORK TELEPHONE COMPANY.

Digitized by Google

Miss S. Molloy, Night Chief Operator. Miss A. Burke, Evening Chief Operator. Miss S. L. Cullen, Chief Operator.

Miss N. Murphy, Day Supervisor. Miss M. Williams, Day Supervisor. Miss C. Rosenwasser, Day Supervisor.

Miss M. Gildea, Evening Supervisor. Miss A. Mara, Evening Supervisor. Miss A. E. Doran, Evening Supervisor. Miss M. J. Dornon, Evening Supervisor.

involved in order to detect any which have been improperly connected.

On the testing desk and also on the switchboard is a device which, when connected to a line where a receiver has been left off the hook, causes a noise or "howl" in the telephone receiver at the subscriber's station which automatically stops when the receiver is replaced.

When a new telephone is being tested, the Wire Chief connects to the line a circuit which makes the new line theoretically twenty miles long, and thus a very efficient transmission test is made before an "O.K." is given to the installer.

In connection with the ringing machines there is a circuit which operates a bell in the Wire Chief's office if the ringing current increases, decreases or stops.

Fuses which are connected with circuits affecting subscribers' service are so wired that when operated, a bell rings, thus notifying the Wire Chief immediately.

Aerial Cables

A large part of this district is fed by aerial cables, of which there are over one hundred. All telephones at Bergen Beach (an amusement park on Jamaica Bay) are fed by an aerial cable, which if placed in a straight line, would be about six miles in length.

Concrete Posts

There are also many blocks fed by the interior pole block plan. Inconspicuous reinforced concrete poles are placed in rear yards throughout a block, and carry electric light as well as telephone cables. Iron terminal boxes used for telephone line distribution are mounted on the poles.

The Commercial Office

The Commercial Department opened its office at 891 Flatbush Avenue September 25, 1911 and on November 1 of the same year the first Joint Bell Telephone-Western Union Telegraph Office in Greater New York was established here. The office is centrally located, and the public is making more and more use of it as its convenience becomes recognized. Thirty-five per cent. of the revenue of this District is paid at the cashier's wicket.

A Steady Growth

The growth in stations has been steadily upward, and the following table will perhaps be of interest:

Stations in Service:	
January 1, 1895	75
January 1, 1900	294
January 1, 1905	1,685
January 1, 1910	5,997
January 1, 1912	8,661
March 1, 1913	10,800

The population of Flatbush is growing by leaps and bounds, building operations are continually increasing and with them the telephone development keeps apace. The Engineering Department has, however, never been at a loss for the answer to any problem with which it has been confronted in

FLATBUSH COMMERCIAL OFFICE OF THE NEW YORK TELEPHONE COMPANY.

Digitized by Google

solving plans for providing telephone equipment adequate to conditions.

The Future of Flatbush

It is believed that the dream of a new port of New York on the southeastern boundary of Flatbush is to be realized. The Federal and State Governments have appropriated $1,500,000 for initial dredging operations, and work is now progressing on this improvement. The plans of the Public Service Commission provide for three parallel lines of transit communication.

Great as the growth and development have been since 1634, the future has much in store, and it is safe to say that present residents in years to come will look upon Flatbush with as much surprise as the old Canarsie Indians would if here today.

Mexican Telephone Workers Stick to Their Posts 'Mid Shot and Shell

THE recent bombardment of Mexico City called for continuous service on the part of the Mexico Telephone and Telegraph Company. No sooner had hostilities begun than the operators began to receive calls from all parts of the city, and the management found it necessary to call out the entire force, which was retained in the exchange buildings from February 9 to February 19.

Unmindful of the roar of cannon and the whistle of bullets, the operators stuck to their posts. When informed that the Federal Government threatened to send armed forces to compel the suspension of service except for Government communications, they told the management that they would wait patiently for the threats to materialize before suspending work. Men employees were equally brave and connected lines in the face of great danger.

The work performed by the United States Embassy was largely facilitated by the excellent telephone service maintained. Many lives were saved and many wounded taken care of, due to the rapid information received by doctors, relatives and friends over the telephone.

History is filled with tales of heroes who risk their lives for their country, and these intrepid telephone workers are entitled to a place equal to that of the bravest of soldiers.

Indefinite

Student in Physics—"Could you get a shock by holding onto the receiver of a telephone?"

Professor—"It depends upon who is talking."—*Judge.*

THE NEW BUILDING OF THE NEW YORK TELEPHONE COMPANY IN BUFFALO.
The Largest and Finest Office Building in the City, and One of the Handsomest, Architecturally, of its Kind in the Country.

New Telephone Building in Buffalo

IN *The* TELEPHONE REVIEW last June we showed a picture of the New York Telephone Company's new building in Buffalo, then in the course of construction. The accompanying illustration shows the new building which is nearly completed and will be opened to the public about the 1st of July.

The erection of this building has been watched with much interest by Buffalo people ever since ground was broken on August 11, 1911, and the policy of the company in erecting the highest building has been greatly appreciated.

The site which was selected by the company's engineers seems to be well taken. It is diagonally opposite the City Hall on the corner of Franklin and Church Streets. The plans were prepared by Messrs. McKenzie, Voorhees & Gmelin, New York, and provide for a "U" shaped building of 15 stories with a frontage of 184 feet on Franklin and 76 feet on Church street. As shown in the illustration, the building was constructed to the full 15 stories on the corner and four stories in the rear, which provides for additional space in the future by carrying up the rear to the full 15 stories.

The local Commercial and Supply Departments will occupy part of the first floor, the remainder being given over to the Western Union, which will also have the entire second floor.

The suburban toll and long distance

Digitized by Google

boards will be combined and located on the 3d floor. The local operating room of the Seneca Exchange will be located on the 4th floor. The switchboard has an initial capacity of 5,600 lines and a total capacity of 10,000, after which a new 10,000 line board may be installed on the 6th floor.

The 5th floor is given over to the terminal room.

The 6th, 7th and 11th floors will not be occupied at present by the Company, but will be rented.

The 8th floor will be occupied by the A., T. & T. Company.

The 9th floor will be occupied by the Auditor and force.

The 12th floor will be occupied by the Plant Engineer.

The 13th floor will be occupied by the Division Plant Superintendent.

The 14th floor will be occupied by the Division Traffic Superintendent.

The 15th floor will be occupied by the Division Commercial office.

The top floor is given over to the local Weather Bureau.

The erection of a $1,172,000 building on what had always been a dead corner has vastly enhanced the value of property in that locality and the expenditure of over a million dollars has greatly benefited an army of workmen, tradesmen and others.

The influence of the building has been not only to enhance the value of down-town property, but to increase the pride of Buffalonians in their city. The agitation for a new municipal building was the result of the erection of the New York Telephone building, and the future holds forth a brilliant prospect.

The Spoon Told

Three little girls each had received a silver spoon as a Christmas gift.

"Mine had 'From your papa' on the handle," said Georgia.

"Mine says 'To my loving daughter,'" chimed in Margaret.

"And mine," said Mabel proudly, "says 'Hotel Auditorium.'"—*Puck.*

The Golden Gate

The center gateway in the Brandenburger Tor in Berlin is reserved for the exclusive use of the Kaiser.

An American visitor drove through the sacred space in his automobile and was promptly arrested.

"The fine is two hundred marks," said the policeman.

The American handed the policeman four hundred marks.

"Sir," protested the policeman, "I said only two hundred."

"I know," replied the American, "but I am coming back again."—*Saturday Evening Post.*

Series of Lectures in the Albany High School

THE Albany Local Manager, Stuart H. Brown, appeared before the Board of Education at one of its regular meetings and received permission to deliver a series of three lectures two weeks apart in the High School General Assembly Room. The Board agreed to this for two reasons. First—Because the High School authorities interest themselves in the vocations of their graduate students and realized that this series would present that phase to those of their students who attend the lectures. Second—Because the lectures presented an educational side as well as an entertainment. The Superintendent of Schools approved the lectures personally.

The first lecture "What's in a Voice, or the Story of the Telephone Girl," was given on March 14 to an audience of about 700 to 800, the majority of whom were students. The second lecture, "The Wonderland of the Telephone," was given on March 28, and the third lecture, "The Marvels of the Telephone," on April 11.

It is interesting to note that the daily papers made special comment in the news and editorial columns as to the educational use of the High School and cordially approved of the action of the Board of Education.

Such lectures have been delivered by Local Agents or Managers and other employees of the Company before schools and colleges quite extensively, especially in the Metropolitan area, and always with the same interest and appreciation on the part of the audiences.

Elbert Hubbard on Courtesy

IN a recent issue of *The Philistine*, "Fra Elbertus" writes as follows on the subject of telephone courtesy. The enjoyment of reading his trenchant style will not lessen the force of what he has to say.

THE advantage and benefit of telephone courtesy is beyond computation.

The telephone is one of the great necessities of modern business. No one wants to abolish it, and it could not be done away with, even if we wanted to.

But the use of the telephone requires a certain amount of patience. You must have faith that the man at the other end of the line has something to tell you that is worth saying.

In the big central telephone offices, operators are selected with especial care to their voices. A girl may have brains all right, but if she has a voice that screams, screeches, or purrs, to that degree she is incompetent, either for telephone service or as a salesman.

To speak distinctly and pleasantly is a fine art. A good speaking voice is not so much a matter of training as of thinking. A person who thinks well of himself and of other people has a voice that assures. People who are anxious, nervous, irritable, hurried, harassed, tired, reveal impatience in their tones.

Any one who uses the telephone, be he operator or patron, aristocrat or plebeian, should practise telephone courtesy. He should speak neither too loud nor too low, but should endeavor to put a smile into his voice, and not tears, doubt or accusation.

Many people on taking down the receiver will shout, "Who's this?" and not getting an answer will say, "Who are you, anyway?" This is followed up with, "What do you want?" All of which is quite useless, absurd and inopportune.

Any one taking down the receiver should announce who he is. If you were a salesman, on entering an office you would not shout at the first man you met, "Who is this?" or "Who are you?"

When you call on a person you have never met before you certainly do not demand that he should reveal his identity until you have first revealed yours. You hand out your card, or you say, "I am Ali Baba of East Aurora." You moderate your voice and speak pleasantly.

On taking down the receiver, either to answer a call or to put one in, when you get your party, say, "This is Mr. Brown who is speaking." Just assume a pleasant attitude of mind, and your voice will follow.

I have noticed that trainmen on certain railroads, for the most part, have pleasant voices. They call the stations in a way so they are understood, and they do not appear to be bawling bad names at their enemies.

They are the voices of men who are well nourished, who get eight hours' sleep, who think well of themselves, who are proud of their job, and proud of the road for which they work.

Thus are they placed on good terms with their colleagues and with the public.

Pertinent Question

Mistress—"Jane, we are going to have company for dinner, and I want to speak to you about the cooking."

Maid—"Yessum; are they your relatives or your husband's?"—*New Orleans Times-Democrat.*

Digitized by Google

The Telephone Society of New York

Main Section

ABOUT 500 members attended the regular monthly meeting of the Main Section of The Telephone Society of New York on March 18.

In the absence of President Cox and Vice-President Jewett, Mr. P. O. Coffin, Chairman of the Membership Committee, presided. Thirty-seven applications for membership were voted on favorably.

The speaker of the evening was Mr. F. H. Bethell, Vice-President of the New York Telephone Company, whose paper is printed in full in this issue.

Mr. Bethell's paper was followed by remarks by Messrs. H. F. Thurber, Vice-President, J. S. Wiley, General Auditor, and J. A. Stewart, General Manager, New York Telephone Company, and N. C. Kingsbury, Vice-President, and B. Gherardi, Engineer of American Telephone and Telegraph Company Plant.

After a rising vote of thanks had been extended to Mr. Bethell, the meeting adjourned.

The April meeting of the Main Section will be held on Wednesday evening, the 23rd. The speaker will be Mr. E. B. Craft, Development Engineer of the Western Electric Company, who will deliver a stereopticon lecture on "The Engineering Laboratories of the Western Electric Company; their problems and their relation to the telephone business."

Hudson Section

ON the evening of March 20, the 9th Meeting of the Hudson Section was held in Jermain Hall in the City of Albany. For intensity of enthusiasm and spontaneity of action the meeting ranks as the greatest gathering of telephone men ever held in this locality. From Albany, Troy, Schenectady and other nearby cities and towns there gathered 500 representative telephone men eager to hear the message of their chief and to give tangible expression of their warm hearted loyalty and zeal.

From the moment that Chairman J. A. Jamison, Jr., sounded his gavel and called the meeting to order the spirit of the occasion began to grow upon the men. With the announcement of Chairman C. E. White of the Membership Committee that the Executive Committee had approved for membership 314 applications (a number greater than the then existing membership), the pent-up feelings of the men broke forth as they happily realized the fact that the Hudson Section had jumped its numbers to the 600 mark.

When this jubilation subsided, Mr. E. H. Powley, Chairman of the Papers and Meetings Committee briefly reviewed the several district meetings that had been held during the month at Poughkeepsie, Kingston and Newburgh, where Mr. E. H. Greenleaf had given an excellent paper on Installation Work. Mr. Powley brought home to the minds of those present that these district meetings were receiving the active support and interest of the men in those places and were proving highly successful and beneficial.

The Chairman then introduced Mr. Frank H. Bethell, Vice-President of the New York Telephone Company and in so doing briefly related Mr. Bethell's work in the ranks in Newark, of his success there and his entry into the business in New York City, his achievements there, of his activities in Washington, Baltimore, and Philadelphia and his return to New York to a position of greater responsibility. The reception extended to Mr. Bethell was extraordinarily enthusiastic and earnest. It was no perfunctory greeting born of mere politeness, but was the spontaneous outburst of sincere welcome and deep rooted affection. Mr. Bethell then gave a most instructive and educational paper on Rates, advancing clearly and convincingly strong and logical arguments in favor of the message rate as against flat rate service.

Mr. Bethell's address has been printed in pamphlet form for general distribution; as announced editorially in this issue.

At the close of Mr. Bethell's address which was heartily received, interesting remarks were also made by Mr. J. A. Stewart, Mr. J. S. Wiley and Mr. T. P. Sylvan, who, together with Messrs. C. T. Russell, J. S. McCulloh, E. F. Sherwood, G. C. Allen, H. C. Carpenter, P. O. Coffin, A. W. Deas, W. B. Woodbury, I. H. Griswold and H. Hendrickson, were also guests of the Section.

A pleasant surprise of the evening was the musical program given by the Blue Bell Orchestra, Glee and Mandolin Clubs. It was their initial appearance, but the many selections were rendered with nicety and expression. Much merriment was occasioned by the several parodies, and the reception accorded the clubs promises well for their future support.

The happy climax of the evening came just before adjournment when Mr. Bethell, arising in his place, feelingly characterized the meeting as one of the most impressive that he had ever attended.

Central Section

THE Central Section of the Telephone Society had a very pleasant and largely attended meeting in Syracuse, March 9, on the occasion of the visit of Vice-President F. H. Bethell, General Manager J. A. Stewart, and General Auditor J. S. Wiley. As President Cox of the Telephone Society was present, he was asked to honor our guests by presiding at the meeting, and was good enough to accept.

Mr. Bethell's paper on "Protecting the Service" was greatly enjoyed by all. It was followed by informal remarks, supplemented by a short paper by Mr. Wiley and an informal talk by Mr. Stewart.

Later in the evening F. G. Wood and C. A. Nicholson, the two founders of the Central New York Telephone and Telegraph Company spoke in a reminiscent view of the old days and more especially of the change between those old days and the present. Mr. Wood said that when they were considering the starting of the business, it was decided to try it in Utica if 16 subscribers could be secured. Today Utica has an exchange of nearly 10,000 stations. C. H. Poole, formerly General Manager of the Utica Home Telephone Company, a strong friend to the New York Telephone Company, followed the two Pioneers; and H. C. Mandeville, President of the York State Telephone Company, operating at Elmira and Binghamton, made some well chosen remarks and extended good wishes.

Altogether the meeting was one of the most enjoyable of the year.

Western Section

THE 13th meeting of the Western Section of the Telephone Society of New York was held in the new Telephone Building, Buffalo, on March 13, and was attended by over 300 members.

The Secretary-Treasurer announced that the membership was 453 and that the section had $546.00 in the bank. 37 new members were elected.

Mr. F. H. Bethell, Vice-President of the New York Telephone Company, then delivered an address on "Protecting the Service." Mr. Bethell's address will be printed in an early issue of this magazine.

At the conclusion of Mr. Bethell's

Digitized by Google

address, Mr. J. A. Stewart, General Manager, New York Telephone Company, made a few remarks. He commented on the Company's plans and progress for the Western Division and commended the spirit which was shown there.

Mr. J. S. Wiley, spoke on the broader view of both the telephone employees and the public, and was followed by Messrs Spaulding, O'Hea, Mott and Ramsdell.

Partial Summary of Outside Development Work, Planned or Under Way

Oyster Bay, L. I.

A LARGE number of high class residences have been constructed in the Oyster Bay District during the last few years, and to care for new telephone development it has been necessary to run a number of aerial wires in sections into which the cable plant does not extend. This residential development is expected to continue quite actively,—therefore, to care for new business as well as to provide cable facilities where it is warranted by the present development or maintenance conditions, an appropriation of about $26,000 has been authorized to provide for placing nearly nine miles of cable in this district. This work will provide Oyster Bay with a complete cable system reaching into the outlying sections in which new development is expected and with facilities to care promptly for new subscribers.

Hempstead, L. I.

AS described in a former issue of *The* TELEPHONE REVIEW, a large amount of cable work was done in the Hempstead District about two years ago in connection with the opening of a new common battery central office. The central part of the village is now provided with adequate cable facilities to care for growth for some time, but a high class residential development is now under way in several of the outlying sections, and cable facilities will be required in a short time to care for the growth which is expected. Plans have recently been approved for placing about 4 miles of cable in these sections, and with these additions Hempstead will be provided with a cable plant adequate to care for a large growth. The number of telephones in this district has increased approximately 50 per cent during the past three years.

Cranford, N. J.

WITHIN the past year about $33,000 has been appropriated by the Executive Committee for work in Cranford, this work including:

(1) The installation of a common battery switchboard with equipment for 500 subscriber lines.

(2) The cable work necessary to concentrate the cable system to the new central office, and

(3) The changing of the subscriber station apparatus from magneto to common battery sets.

This work has been practically completed, and the new switchboard is now in operation.

The cable work above also includes some additions to the aerial cable system, and upon completion of this work the telephone system in Cranford will be complete and up-to-date in every respect and second to none for a town of this size.

With the improved type of service it is expected that a substantial growth of telephones will be secured in the Cranford district during the next few years.

Elizabeth, N. J.

THE New York Telephone Company has now about completed work approved under an appropriation of approximately $65,000 providing for the placing of about 16.5 miles of cable in various sections of the Elizabeth District. The completon of the reconcentration of subscribers' lines to these new cables and the removal of the old plant which is being actively carried on will result in a marked improvement both in the appearance of the telephone plant and in the grade of service. It is now planned to continue this work throughout all the built-up portions of the district not yet provided with permanent plant and a further appropriation of about $59,000 has been authorized to cover the placing of some 15 miles of additional underground and aerial cable. Upon the completion of these cables and the removal of the aerial wires which they will displace, the entire plant will be in first class condition, with sufficient facilities to care for a large growth and with maintenance troubles reduced to a minimum. This district includes the Elizabeth, Roselle, Linden and Unionville Central Office Districts. A large amount of high class residential development is under way in various sections of this district, and a substantial growth in telephones is expected from this development.

Recent Changes in Telephone Equipment in South Dayton, N. Y.

THE recent taking over of the South Dayton, N. Y., territory, which has hitherto been sublicensed, involved considerable new equipment and extension work. Two switchboards, each having a capacity of 10 lines, were replaced by standard 40-line magneto switchboards. It was necessary to place the 40-line switchboards in new quarters on short notice, and temporary terminating facilities were, therefore, required in connection with temporary outside Plant work.

The temporary terminating facilities in connection with new 200 pair entering cable will be replaced by standard wall type frame, having a terminating capacity for 250 outside lines and 320 lines to the switchboard. For the present, 40 lines to the switchboard will be equipped on this distributing frame, together with 200 pairs of fuses for terminating the 200 pair cable. The Central Office equipment is estimated to be sufficient to take care of the growth during the next two years.

The work of the Plant Department in this connection includes the stringing of 5,100 feet of aerial cable and the placing of 65 new poles replacing 18 old ones, stringing 38 miles of copper toll wire and 2 miles of exchange wire and all the necessary smaller equipment.

The work of building about four and one-half miles of pole line to Gowanda at an expense of $1,200.00 will be started soon. This line will serve 18 subscribers. There are 38 subscribers at present and 3 pay stations which are served by the 12 lines now in operation.

Organization Changes

LONG ISLAND DIVISION.

Plant Department

W. Riddell, Jr., Wire Chief of Bath Beach, to take up other work.

M. McDonald, Wire Chief of Bay Ridge, appointed Wire Chief of Bath Beach and Coney Island.

L. R. Merson, Deskman at Prospect, appointed Wire Chief of Bay Ridge.

J. L. Pitcher, Wire Chief of Bedford, appointed Wire Chief of Prospect, and in addition will still act as Wire Chief of Bedford, in a supervising capacity.

J. A. Selby appointed Deskman in charge of Bedford, with whom all matters of regular routine should be taken up.

Digitized by Google

Commercial Department

I. H. Wright, appointed District Agent, Jamaica, L. I., succeeding H. L. Palmer, transferred.

J. F. O'Hea, appointed District Agent, Williamsburg, L. I., succeeding I. H. Wright, transferred.

A Local Commercial Office has been established at Huntington, L. I., in the Post Office Building on New York Ave. This office will handle the general commercial work of this Department for the following exchange Districts:—

Huntington, Cold Spring Harbor, Northport, Commack, Kings Park, Smithtown, St. James, Stony Brook, Setauket, Port Jefferson, Shoreham.

H. R. Ackerly is Agent-in-Charge, reporting to Mr. Lightbody, Local Agent at Patchogue.

WESTCHESTER DIVISION.

Commercial Department

W. A. Bentley, transferred from Division Commercial Manager, Westchester, to the office of the Vice-President, for special work.

H. L. Palmer, appointed Division Commercial Manager, Westchester, Headquarters, Mount Vernon, N. Y.

Traffic Department

T. H. Lowery, Chief Service Inspector, has been appointed Manager of Traffic Inspection, Western Division, with headquarters at Buffalo.

H. C. Orth appointed Traffic Inspector, Mt. Vernon, succeeding Mr. Lowery.

HUDSON DIVISION.

Commercial Department

Mr. Ralph Haver, Local Manager at Poughkeepsie, succeeds R. L. Chapman resigned, as Local Manager of the Troy District.

E. N. Bull has been appointed Local Manager at Poughkeepsie, to succeed Mr. Haver.

CENTRAL DIVISION.

Plant Department

John H. Bragg, appointed Wire Chief at Baldwinsville, reporting to the District Inspector, Syracuse.

H. B. Risley, former Wire Chief, Baldwinsville, transferred to the Utica District, reporting to Mr. J. Richardson, District Plant Superintendent, Utica.

Traffic Department

Miss Mabel Cornell appointed Evening Chief operator at Ithaca.

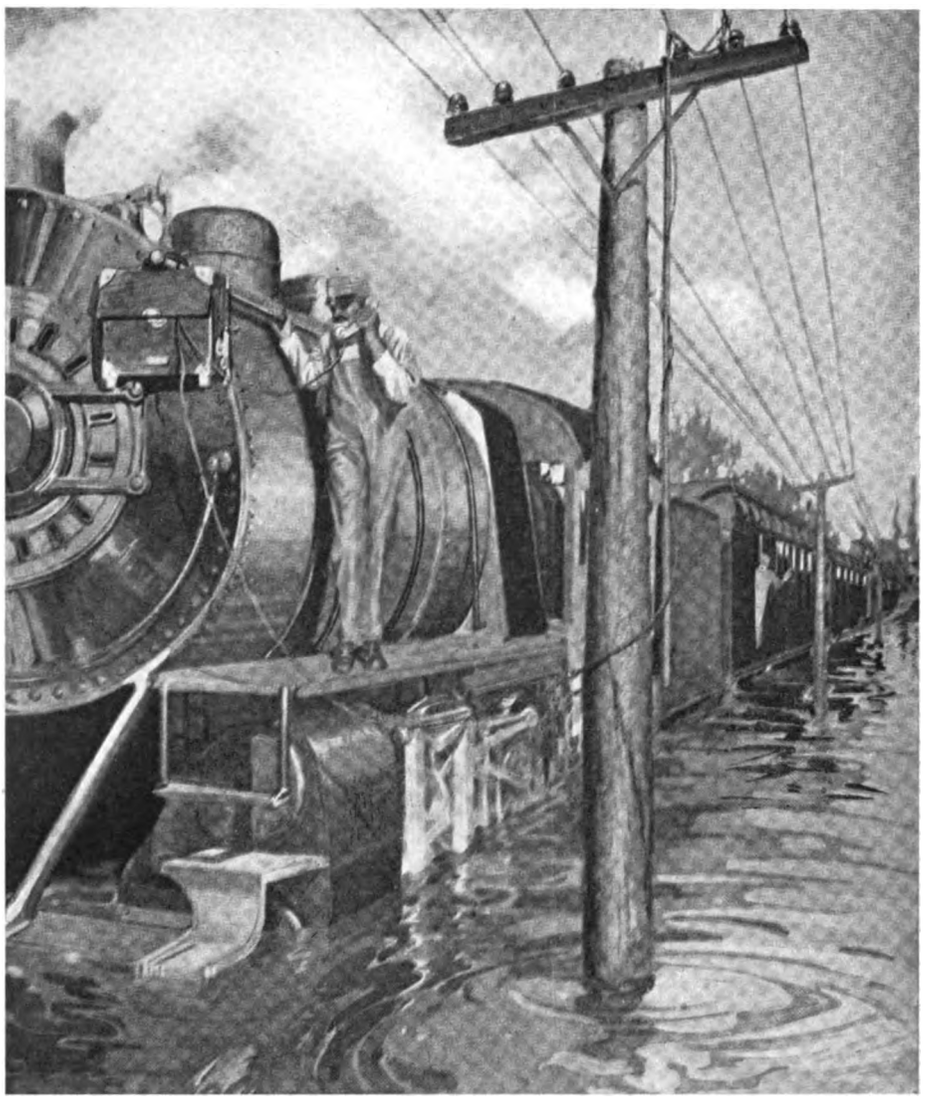
Miss Maud Silcox appointed Chief Operator at Moravia.

Miss Grace Bronell appointed Chief Operator at Waterloo.

WESTERN DIVISION.

Plant Department

J. N. Walters has been transferred to the Engineering Department, New York City.



COVER OF THE *WESTERN ELECTRIC NEWS*, APRIL 1913.

He Was Lonesome

ON a recent morning at 1:15 the night chief operator in South Orange, N. J., answered a call from a subscriber's line and instead of the usual request for a number, heard a little child crying piteously. Try as she would, her efforts to find out what was the trouble were unavailing.

Thinking the house was on fire or some other disaster imminent, the chief operator called the subscriber nearest the house from which the call had come and explained the circumstances. The lady that answered happened to know that the child's parents were attending a social function at the Maplewood Town Hall, and promised to call them immediately.

In response to the neighbor's call they hastened home and found the little tot fast asleep with his head on the window sill near the telephone. The maid who had been left in charge had retired to her room on the third floor and did not hear the youngster's cries.—R. D. DONALDSON, Ass't. Mgr., Newark District.

A Timely Cover

A COVER design of unusual timeliness is that which appears on the *Western Electric News* for April.

This cover depicts a railroad train stalled on the track in a flood, while the engineer, climbing out along the running board of the locomotive, has tapped a pair of telephone wires with his line pole, and using a portable telephone set, is calling up the nearest station for assistance.

The picture was drawn and the plates made in February, being suggested by some freshets in the South, but the appropriateness of this picture at the time of its appearance, due to the flooded condition throughout the Ohio Valley, makes it almost startling.

Digitized by Google

Visitors to Central Offices

A TABULATED report printed in *The Telephone News* of March 15, shows that between March 2 and December 28, 1912, there was a total of 10,595 visitors to the thirty-two Central Offices in the Harrisburg Division, or an average of about forty a day.

Great numbers also visit our Central Offices, and always what they see interests and enlightens them beyond their highest expectations. Occasionally schools, clubs, societies, etc., will come in a body, and visits from individual subscribers are quite frequent. Mr. Clearwater, our Local Manager at Kingston, arranged to have the Woman's Club of his city visit the exchange, which afforded an excellent opportunity to increase their appreciation of the telephone service they were receiving.

The following letter is an illustration of the benefits that invariably result. The writer, Mr. Charles F. Southard, is Advertising Manager for A. D. Matthews Sons, Brooklyn, and Instructor of Advertising and Salesmanship for the Brooklyn Evening High School for Men:—

"Some time ago," writes Mr. Southard, "I had the pleasure of being conducted through one of your Brooklyn Central Offices. I said to Mr. Clements, the gentleman who escorted me, that never again would I find fault with telephone service.

"The marvelous detail of correspondence of mechanical device, the alertness and patience of operators in rendering service, the precaution against breakdown and ability to overcome difficulty won my respect and admiration.

"In every department where introduced, I was accorded the most polite courtesy and a fund of important knowledge.

"At a lecture I attended, by Mr. Theo. F. Perkins, speaking of the wonders of the day in which we live, he used as an illustration, the telephone.

"'Before its introduction,' said he, a captain of industry in completing a financial deal must either go in person, write, send a messenger, or telegraph, all of which consumed time and was in many ways ineffective.

"'Today he sits in his office, and with the telephone, in a few minutes, conveys his authoritative voice and personality in a dozen directions and closes deals of vast importance.

"'In other words, with the telephone, a man approaches omnipresence, in its ability to place him personally at vast distances within a few minutes.

"'Great is the telephone!'"

Another Feat of "The Finder of Men"

ON MARCH 24, at 2:30 p. m., the subscriber to Riverside 3052 (Manhattan) called Dover (N. J.) 254 and was told "out of order." Later he was given a "don't answer" report. This report was verified. The subscriber then asked for the nearest telephone to 126 Prospect street, Dover. Dover Information reported the number and upon being given a "busy" report for it, the subscriber stated he had sent an automobile van loaded with furniture to 126 Prospect street, Dover, and that while he was away from his office, someone in Dover called and left word that the van had become badly damaged. He wanted to get in touch with the driver of this van and instruct him not to take the broken vehicle to New York, as, should he do so, it would eventually cost something around six or seven hundred dollars to repair it. He further stated that he felt it was absolutely necessary for him to have our co-operation in order to make any progress towards locating the van, and that the expense incurred by our making inquiries in that direction would be paid without question.

The case was explained to the Dover Chief Operator, who called Dover 227 party J, and this subscriber was connected with the New York subscriber. She told him that she had seen his van going towards New York about ten minutes before. While 227-J was giving our party this information, the Dover Chief Operator was making inquiries at the Dover Garage. They also stated that they had seen the van proceeding towards New York.

The Dover Chief Operator then called up two or three parties on the main road from Dover to New York, and requested that they watch out for the van and call her if they were successful in reaching the driver. Not hearing from any of these parties, in what Dover considered due time, she advised us to communicate with the Rockaway Central Office. We did so at once and explained the situation to the agent there. He volunteered to render all the assistance he could. He connected us with Rockaway 32-J, the Denville Hotel. We made the necessary explanations to the proprietor, who assured us he would watch carefully and call us if he was able to reach our party. At the expiration of a few minutes, we again called the Hotel and were informed by the proprietor that he had seen the driver go by, but had been too busy to call him. On hearing this, the Rockaway Agent suggested that we speak to the Lackawanna R. R. Station Agent in Morris Plains. We gave the details to him and had just about finished doing so when the van came along. The agent signaled the driver to stop, had him come to the telephone and the connection was then completed.

When finished with the connection, the New York subscriber said he wished to extend his sincere thanks to the Telephone Company for the hearty interest and consideration shown him in this matter; that the good will manifested by us throughout the entire call was certainly worthy of a more significant reward than a mere "Thank you," and that he fully intended to advertise it widely among his many friends and acquaintances.

(Miss) H. Adreance,
Chief Operator, Jersey Toll Bd.

Why the Estimated Cost on a Job Should be Correct

THERE is always a certain amount of controversy going on between the Plant Engineers and the Construction Men as to the amount that should be allowed for doing certain work. The Engineer invariably assumes the attitude that the Construction Man should not be concerned with the appropriation, as all that he has to do is to work. This is bigotry on the part of the Engineer and an injustice to the Construction Man.

The waste caused by inaccurate estimating is great. In case the Telephone Company is doing its own construction work, too liberal estimates result in expensive work, it being only required that the Construction Man keep within the estimate; there is a tendency to lay out the work with that object in view, with the belief that good results have been achieved if it is successfully accomplished, no matter how large the estimate may have been. At one time I had a gang on a job of stringing a new toll circuit and doing some repairs to the pole line at the same time, all of which was done for 70 per cent of the estimated cost, and it was done well. The foreman was highly elated over his success, and said that he had the "working-est gang that ever came down the pike." He actually believed that he had made a record for himself and was looking for recognition, when a study of the job showed that originally it had been overestimated.

On the other hand, estimates which

Digitized by Google

are much too small have a tendency to cause Construction Men to lose interest in their work, as they know that the over-running of an estimate never results in any credit to them, no matter how cheaply the work is done. If the original plans are changed without a corresponding change in the appropriation, the Construction Man does not care what the resultant cost of the work may turn out to be. Perhaps the Construction Man does not have the right ideal in mind, which is to do the best work you can in the most economical manner; but, on the other hand, the Engineer often makes the estimate on a job what he would like to see the work done at rather than what it will actually cost. It may be a good policy to keep the cost estimate from the Superintendent of Construction entirely, but in the end the Engineer generally seeks to obtain from him the reason for any surplus or deficit.

Naturally Construction Superintendents and Foremen are guided by the estimate, and they believe to a certain extent that the results of their work are shown by the amount of the debit or credit balance.

In the case of a contractor, it needs little argument to show the loss caused by inaccurate estimating. If the estimate is too large, he may lose the contract; if too small, he loses his profits. In the first case he often discourages construction, and in the other he cannot long exist.

O. W. McIndoo,
Engineer, Plant Dept., Syracuse.

The Bell Telephone Athletic Association of New Jersey

ON March 13, 1913, the Bell Telephone Athletic Association of New Jersey came into existence and was placed upon an active business basis. The need of an organization of this kind had been felt for some time, but such sentiment and activity as had existed did not find concrete expression until the date mentioned above.

Some of the things which have justified this organization in the minds of its founders are a full realization of the fact that man cannot live unto himself alone, and the conclusion that the highest development, both from a social and business standpoint, cannot be reached without supplementing our routine business activities and associations by such exercise and athletic endeavor as are brought about by wholesome competitive sport in congenial company. It is felt, moreover, that the opportunities which will be afforded for developing more intimate acquaintance between employees of the various departments will be a strong factor in broadening our outlook and making us more efficient in our business relations.

OFFICERS AND BOARD OF GOVERNORS OF BELL TELEPHONE ATHLETIC ASSOCIATION OF NEW JERSEY.

Standing From Left to Right—F. E. Shafer, A. G. Wright, T. I. Gorton, C. H. Hartzell, H. B. Fenn, A. C. Pilger, W. W. Emmons, R. E. Collins.
Sitting—W. R. Gordon, B. A. Crawford, G. R. Sharpless, J. F. Naylon, J. F. Murphy, R. W. McBride.

Membership in this association is open to the employees of all departments in the New Jersey Division of the New York Telephone Company. While it is the ultimate purpose to enter more or less into the various athletic sports, our immediate attention will be given to the developing of a strong base ball team, which will meet in its schedule none but fully uniformed teams of good standing.

At the first formal meeting, which was held on March 13, the following officers were elected:

President, J. F. Naylon, District Supt., Newark, Plant Dept.; vice-president, G. R. Sharpless, Chief Construction, Plant Dept.; treasurer, J. F. Murphy, Chief Line Foreman, Newark, Plant Dept.; financial secretary, R. W. McBride, Supervising Bookkeeper, Accounting Dept.; recording secretary, B. A. Crawford, Special Agent, Railroad Office, Commercial Dept.; sergeant-at-arms, W. R. Gordon, Contract Clerk, Accounting Dept.

Marked progress has been made since the election of officers, and President Naylon has already appointed the following Board of Governors.

R. E. Collins, Auditing Department; W. W. Emmons, Plant Department; L. Fairlamb, Plant Department; H. B. Fenn, Commercial Department; T. I. Gorton, Commercial Department; C. H. Hartzell, Traffic Department; A. C. Pilger, Plant Department; F. E. Shafer, Plant Department; A. G. Wright, Plant Department.

A. D. Smith, Chairman; J. F. Arthur, J. F. McCarthy, A. McHugh, G. McGill and A. Ryan have been appointed to the Base Ball Committee and have under consideration the lease of a base ball field upon which they have secured an option.

The first meeting of the association indicated the enthusiasm with which this movement is being received, the attendance at the meeting numbering between 300 and 400 employees from all departments. A large percentage of this attendance promptly enrolled. With several hundred dollars of initiation fees in the treasury, and with membership open to approximately 1800 employes, a large proportion of whom will undoubtedly appreciate the advantages, both social and athletic, offered by the organization, the outlook is highly encouraging and justifies the prediction that the Bell Telephone Athletic Association of New Jersey will attain a success in point of membership, athletics and finances, which will reflect not a little credit upon all who are identified with this movement.

Digitized by Google

The Exchange

Suggested by H. Bell, Local Agent, Englewood, N. J.

AS a Central Office, which is often called an "Exchange," enables people to communicate with one another though miles apart, so do the columns of this magazine afford an opportunity for all employees of our company to exchange ideas and anecdotes.

Hence the above caption is very appropriate for the following short items which have been sent in by interested readers. These are not all that we have received, by any means, but often for one reason or another (which sometimes may not be clear to the writers) we are unable to use contributions, or delay printing them, while we print others that may not seem to be essentially different.

Who Can Tell?

"A subscriber" writes us the following (im-)pertinent question. What is the answer?

"Our honey-suckle vine is trying its best to creep along the telephone wire. Will it injure the service if we let it go ahead?"

Heeded Telephone Calls

Vice-President Thos. R. Marshall was asked to reply to the question, "Why I went into politics," and, to quote from *Colliers*, said:

"My entry into it as a candidate for office was purely accidental so far as I can see from the human standpoint. I was boomed by my friends for Governor at a time when I was away from home. It was without my consent and knowledge or desire, but you know the average man has a telephone at hand to listen to the call of his friends. I heard and heeded and was elected."

"Just Suppose"

The Watertown *Standard* states that a "house to let" ad. was inserted "a few days ago," and "just three minutes after the paper was off the press" the advertiser's "telephone started playing jingle bells to him when thirteen applicants rang over the wire. He rented." How poetic and yet how true! Just suppose he had had no telephone!

Unsolicited Speech

A subscriber wishing to report that his bell rang when no one was calling him, said: "Central, my telephone is 'outie' order." "What seems to be the trouble?" I asked. "He speaks without asking," was the illuminating reply. (Miss) M. A. Hughes,
Ass't Chief Operator of Orchard.

A Record

On February 25, Foreman Henry Miller and gang of four linemen and two groundmen, equipped with a 1-ton auto truck, placed the following cable between Albany and Loudenville, N. Y.:

13,284 ft. 100 x 19 gauge.
1,495 ft. 50 x 19 gauge.

14,779 ft. total.

The record is all the more remarkable when it is considered that with the exception of the 50x cable, none of the sixteen reels contained more than a thousand feet and one of them held but 307 feet.

The work was all done within the usual nine-hour day and included the placing of the reels and removal of the lags, but did not include picking up any of the reels or lags.—R. P. Bunyan, Construction Foreman, Albany.

An Italian Hibernicism

Recently a letter was received from an Italian subscriber and written across the back of the envelope in a wavering hand, was this inscription:

"If you don't get it, send it back."—R. D. Clearwater, Local Manager, Kingston.

Query

If a *Spring* is round is *Madison Square?*

Michael Sullivan,
Messenger of Franklin & Worth.

Fire Short-Circuited Telephone Wire and Building Saved from Destruction

On the night of March 14, a fire broke out in the seventh floor of the Sydenham Building and was making headway when it reached the wires of an extension telephone and short-circuited the line, causing a signal to appear on the switchboard.

After answering the signal and receiving no response to repeated inquiries of "Number, please," the operator surmised that something must be wrong, and he quickly sent the elevator boy to the seventh floor. The boy discovered the fire and lost no time in returning, and the operator at once sent in an alarm.

Only for the telephone wires the whole building would have been lost. As it was, the blaze was confined to the sixth and seventh floors.—(Miss) Margaret Carraher, Operator, Sydenham.

Telephone Club at Paterson

The Telephone Club of the Northern District, New Jersey Division, gave an entertainment and informal dance in Paterson on March 28, about 450 employees and their friends being present. The Commercial Department was well represented by many officials, and the rank and file of the Plant and Tariff Departments were very much in evidence.

The occasion was largely in the nature of an experiment, and its complete success justified the expectations of the most sanguine.

Paterson Telephone Pulse Depressed

The pulse of business is the telephone system. Any depression occurring in the business world is at once apparent in the slowing down of the telephone pulse. This has been noticeable, during the textile strike, with which Paterson, N. J., was afflicted. Over one hundred silk mills ceased to operate because of the disagreement between the owners and the operatives, and this condition was reflected in a depression in the Paterson telephone pulse. All lines of business were affected.—L. E. Bailey, Salesman, Paterson.

Partisan

A Kingston, N. Y., operator recently received a call for number 123. She answered, "123 is a party line, what—?" but before she could ask for the letter, the patron who had the "voice with the smile" interrupted with "Is that so? Well, I want Hogan of the Dimocratic Party"—(Miss) F. E. Gower, Chief Operator, Kingston.

The New Jersey Shore

A 300-station switchboard has recently been installed in the New Monmouth Hotel at Spring Lake, N. J., superseding the old interior system.

One of Paterson's bank officials, at lunch in a prominent club,

fice was opened at Lakewood, N. J. It is in charge of I. N. Newkirk, Resident Agent, reporting to the District Agent at Asbury Park.

As this office serves a territory of about 400 square miles, most of which is farming country, Mr. Newkirk makes good use of a motor cycle, being, in fact, the first agent in the district to adopt this means of transportation.

Digitized by Google

"Going Some"

A Day Letter was filed at the Greenwich, Conn., joint office, addressed to a party in Omaha, Nebraska.

The message was received by telephone, sent, answer received and delivered by telephone in exactly twenty-three minutes.—W. R. ENO, Local Agent.

Repairing Talking Machine by Telephone

I am employed in a large Victor Talking Machine Store in New York, and had the following experience:

Not long ago I had a customer, who purchased a talking machine from our store. About three days later, I was called to the telephone and was told by her that during transit it had been jarred and was not playing right. She also stated that if we would not repair it right away (which was impossible) she would return it for credit. So I said to myself that I would have to hear the machine eventually, so why not try it over the telephone. I did and I wish to say that it was repaired to the satisfaction of both the lady and myself. It could sound no better if Caruso were standing beside me in my repair shop. With that the customer thanked me and subsequently she telephoned that her affair was a success, but would have been a failure for herself and her guests if it were not for the telephone. And with that she hung up the receiver to the strains of Good Bye My Blue Bell (Telephone).

EDWARD JOHN KIERNAN.
1295 1st Avenue, N. Y. City.

Worth 3,000

A Branch Brook, Newark, operator, having occasion to complete a "busy" on Worth 3,000, asked the subscriber: "Are you Worth 3,000?" "No, Central," answered the subscriber, "I am worth only 30 cents, but my telephone is Worth 3,000."—(Miss) M. O. BRENNEY, Chief Operator.

Western Division Exceeds Commercial Manager's Estimate for January and February

The Western Division started, and has so far maintained, a pace which marks a new era in the commercial progress of the Division.

The estimate made by the Commercial Manager for January was 833 stations, and this estimate was exceeded by 274 stations, a total of 1107 contracts having been secured. February, the short month, and one of the few months that gave us some concern on account of the high estimate of 959 stations, was brilliantly closed with a total net gain of 1150 stations—191 stations in excess of the estimate. We are, therefore, 465 stations in excess of the estimate for January and February.

These gains made in the first two months of the year indicate the feeling on the part of the Division officials that not only will the estimate made by the Commercial Manager be reached, but that it will be exceeded.

It's Everywhere

The patentee of an "attachment" to be placed on telephones called at our office in Newark to obtain some advice and assistance in introducing his invention. We explained to him the Company's attitude towards attachments, and also that it is in violation of their contracts for subscribers to use them. He then asked if it would not be possible for him to go to Paterson or Bound Brook or some other place and introduce them there. My reply was simply to the point to a map of the Universal Bell System which hangs in our office, and after gazing upon it for a while, he remarked: "My! my! You are like the British flag. The sun never sets on the Bell." And he departed.

A. C. PILGER,
Division Chief Clerk, Plant, Newark.

From a District Agent's Desk

One of Paterson's prominent bank officials, at lunch in a prominent club, commenting on the make-up of the new telephone directory, paid the Company and its employees a noteworthy compliment in saying that it was remarkable how a concern like the Telephone Company that necessarily received so many kicks, groundless and otherwise, found it possible to secure employees so courteous and obliging. They made him feel ashamed at having attempted to make a complaint.

The connection of a new subscriber in a rural section involved the placing of two poles on private property. The applicant agreed to furnish poles, but stipulated that the wires should be near enough to the ground to permit of hanging the washing thereon, thereby eliminating the necessity of the usual clothes line. The salesman advised the applicant that ordinary clothes pins would not fit the wire.

M. J. MOLONEY,
District Agent, Paterson.

New York Telephone Athletic Club

THE first Annual Entertainment and Informal Dance given by the New York Telephone Athletic Club at the Murray Hill Lyceum, Manhattan, on March 27, was a marked success. An attendance of about 700 fully justified the expectations of the Club.

The entertainment consisted of a vaudeville program and included baritone solos by W. J. Coogan which, as usual, called forth unstinted applause. Dancing then followed until a late or rather an early hour, the wall flowers being conspicuous by their absence.

The committee in charge, J. C. Axtmann, Chairman, as well as the entire membership of the Club, have good reason to feel elated at their good beginning.

In our March issue we called attention to the fact that the New York Telephone Athletic Club desires to grow, and its membership is open to employees in all departments throughout the entire territory. If you are interested in athletics, send in your application.

Bowling

Metropolitan

THE Metropolitan Bowling League has just concluded a most successful season. A keen rivalry has been developed among the various teams, and whether winners or losers, all who have taken part in the sport have gained the benefits of healthful exercise and good fellowship.

The final standing shows the Long Island Revenue Team in the lead with the fine record of 28 won and 5 lost. The Plant Accounting boys are a good second, and close behind stands the Manhattan Commercial aggregation. The Brooklyn Plant team carries off high score of 987, and the Manhattan Commercial high average of 851.21. Reynolds of the Manhattan Commercial held fast to high individual average until the finish, his final mark being 183.12. Girtanner, of the Plant Accounting, has high individual score of 256.

These records entitle the holders to great credit and offer good marks for ambitious bowlers to shoot at in times to come. Although we have mentioned only the winners, a glance at the standing shows that they had stiff opposition.

New Jersey

A BOWLING Match was held in Newark on March 5, between five men teams of the Public Service Electric Company and the New York Telephone Company, in which Public Service won two out of three games. A return match, however, will be rolled in the near future, and the Telephone team expects to turn the tables on its rivals.

Digitized by Google

Buffalo's Bowling Tournament Finished

FRIDAY, March 7, was the date of the final meeting of the New York Telephone Bowling League of Buffalo for the season 1912-13. The prize winners were as follows:

First team prize—Gold cuff links, won by the Equipment team.

Second team prize—Sterling silver watch fobs, won by the Commercial team.

Third team prize—Sterling silver cuff links, won by the Auditing-Traffic Team.

First high average—J. G. Carritt, average 176, silver cup.

Second high average—W. T. Pickard, average 175, chip diamond cuff links.

Third high average—C. Wacker, gold stick pin.

First high individual score—E. H. Kissinger; total 235; gold stick pin.

High three game total—Ed Wirth; total 599; gold stick pin.

Second high individual score—J. Guilliume; total 232; silver cuff links.

The above men are winners of the individual prizes on account of having participated in the required number of games.

The banquet and theatre party were held on Saturday evening, March 29.

The Telephone An Aid to Health

"THE telephone has been a mighty factor in improving the health and welfare of the community. Health bureaus have been able to accomplish their work more rapidly and effectively by use of the telephone. Ambulance service has been developed to a high state of efficiency through the accessibility of telephones in all parts of the community. Rapidity of service, with promptness in telephoning, have served to save many lives that otherwise might have been lost."—From *Medical Review of Reviews.*

The writer of the foregoing has not overrated the telephone as a factor in improving the health and welfare of a community; indeed, he might well have gone further and spoken of its emergency value in summoning assistance in cases of accident or sudden illness, and, also, as an aid to convalescence. The last is by no means least.

Danger from "Curiosity" Calls

THE telephone has repeatedly proven its value in all kinds of emergencies, where lives and property were at stake, and scarcely ever do we read an account of a fire or similar occurrence in which it does not play an important part in summoning aid. In rendering such service to the public, however, the operators at the switchboard must have full opportunity to handle these important emergency calls and remain unhampered by telephone users who, at such times, call out of mere curiosity.

This phase of telephone service is aptly illustrated by the following from *New England Telephone Topics* for February, 1913:

"On Wednesday morning, February 18, there was a striking instance of the importance of the telephone in making fire calls, and also of the danger of such calls being blocked by the 'curiosity calls' of the general public.

The incident occurred in Portland. Between five and six o'clock that morning a fire was discovered in the business section of the city and an alarm was immediately sounded. When the Chief arrived on the scene, he deemed a second alarm desirable but was unable to send it from the fire alarm box, because of some temporary derangement of the fire alarm machinery. He therefore instructed his driver to go to the nearest telephone and give instructions to fire headquarters that a second alarm be sounded from there.

Meanwhile, however, many subscribers who heard the first alarm immediately ran to their telephones to call up the central office and ask where the fire was. As a matter of fact, the central office had no detailed information on that subject. The operators simply knew (what everyone in Portland knew from the fire whistle) that the alarm came from a certain box.

The board fairly shone with the lights of those who were calling out of mere curiosity and it was only by chance that Miss Mitchell, the chief operator, who had hastily dressed and proceeded to the exchange upon hearing the first alarm, happened to plug in, in answer to the light from the telephone which was being used by the fire chief's driver. The connection with fire headquarters was made without delay therefore, and the second alarm was sounded in accordance with the fire chief's wishes.

It is readily apparent, however, that among the hundreds of curiosity calls, such a real and vital emergency call might have remained unanswered for fifteen minutes or more, were it not for the good fortune that led the chief operator to plug in on this particular line.

These curiosity fire calls are getting to be not merely an inconvenience to the operating force, but a serious possible danger to effective emergency service to the public. Every person connected with the traffic department of the company realizes this. It is not that the company is unwilling to be courteous to its subscribers and give them information on this subject, that prompts the suggestion that the practice of giving such information ought to be absolutely discountenanced; it is the more serious and controlling fact that on the switchboard all calls look alike, and that such curiosity calls may easily stand in the way of imperative emergency calls, to the possible resulting injury to property or danger to life.

Sometimes it is not easy to make the public realize that our unwillingness to handle such calls is founded on a regard for the public welfare. Therefore, this concrete instance of how what might have been a serious catastrophe was averted only by chance, may be helpful to managers and subscribers' agents."

Success At Hand

MANY men and business concerns fail simply because they do not take advantage of their opportunities. A successful business man tells in the New York *World* how he turned failure into success by awakening to the value of using the telephone in soliciting business. What he did many others have done, and can do. The article follows:

"For five years," says the head of the firm of James F. Barrett & Co. of Winthrop, Mass., "success was within reach of my hand every time I sat down to my desk, but I overlooked it. With success at my very elbow, I was ready to sell out my business, a grocery, meat and provision store in a thriving suburb, for whatever it would bring. We had a big turnover, but no profits. The end of the year usually showed us pretty nearly an exact balance.

"One morning I gave an order over the telephone for nearly $1,000 worth of goods, and it suddenly struck me that if the telephone could be used to buy goods it should serve for selling them. That telephone connected us directly with nearly 4,000 homes, possible customers within delivery distance. I determined to try for their trade. * * * The result to-day is a business of nearly three-quarters of a million dollars a year, and our losses from bad debts are negligible. We use the telephone in collecting bills also and find it seldom fails.

"We simply made our telephone work for us."

The Up-To-Date Way

"Zerlinda loved a troubadour,
Who carried her off with a coach and four.
Crack went the whip, they galloped fast;
But Linda's pa caught up at last.
Zerlinda to a convent hied,
And told her beads and pining died."

Young Jones he wooed a girl with zeal,
And he carried her off in an automobile.
Away they spun, the dust it flew,
Her pa got tired in an hour or two,
Gave up the chase, and returned alone,
To forgive them both by telephone.

J. W. HEALEY,
Schenectady Commercial.

Mental Influence

"How far is it to Gloomville?" we ask of the native who is leaning over the gate.

"Ten mile straight ahead," he answers.

"But we met a man a little way back and he said it was only two miles."

"Short, fat man, drivin' a flea-bitten sorrel hoss?"

"That's the man."

"Did ye meet him or pass him?"

"We passed him."

"Thought so. He's drivin' a balker I traded him, an' he didn't want his hoss to know how much furder it had to go."—*Chicago Post.*

There Are Others

Post—"Do you think the day will come when there will be no coal left on earth?"
Parker—"Well, it won't be our cook's fault if it doesn't."—*Life.*

Digitized by Google

The Power of Silent Service

If the crowd on the stock exchange kept quiet and let one man talk, that man could be heard in every corner of the room. But the shouting members produce a composite of sound, so that no one trader is understood except by a small group around a particular trading post.

If everyone were able to shout twice as loud, the result would be only a greater noise, and less intelligible.

For communication to be universal there must be silent transmission. In a noisy stock exchange where the voice, unaided, cannot be understood across the room, there are hundreds of telephones which carry speech half way across the continent.

The telephone converts the spoken words into silent electrical impulses.

In a single Bell telephone cable, a hundred conversations can be carried side by side without interference, and then distributed to as many different cities and towns throughout the land. Each conversation is led through a system of wire pathways to its proper destination, and whispers its message into a waiting ear.

Silent transmission and the interconnecting lines of the Bell System are indispensable for universal telephone service.

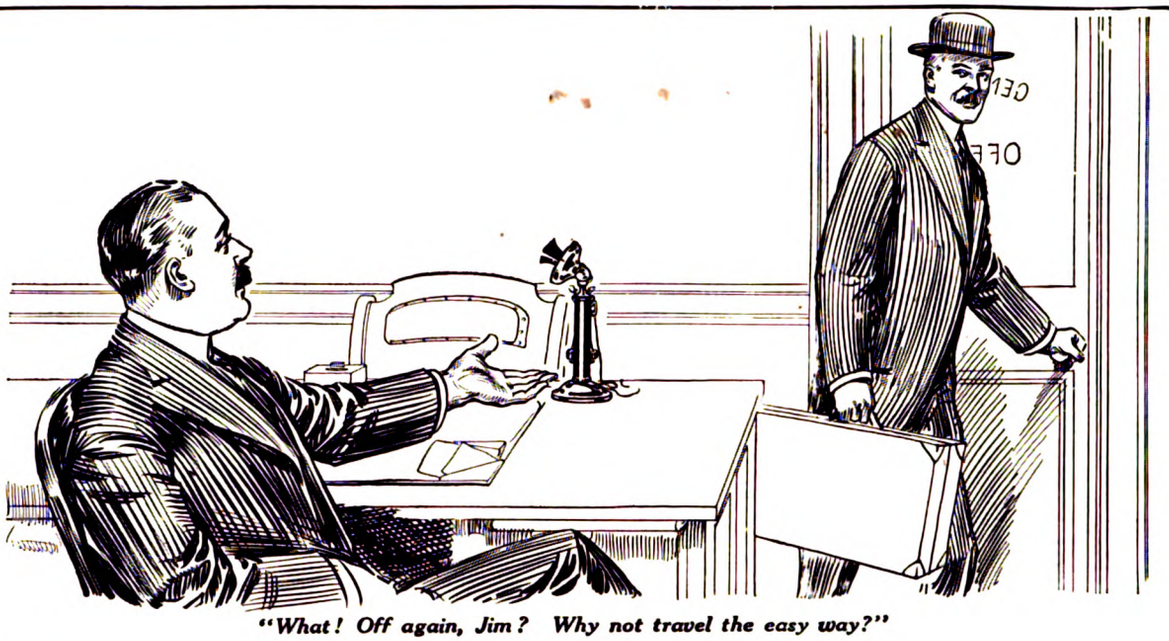
Without such service, our cities would be slow of speech and the States would be less closely knit together.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

Every Bell Telephone is the Centre of the System

Digitized by Google



"What! Off again, Jim? Why not travel the easy way?"

"Take The Talk Train —Telephone"

"WHY should you exert yourself and waste valuable time in traveling, when the 'talk trains' will take your ***voice,*** your ***ideas,*** your ***personality,*** anywhere, almost instantly, and in nearly every case with as satisfactory results?"

Your ***telephone*** is the terminal from which "talk trains" will start whenever you wish. They will take you to any one of several million other Bell telephone terminals in the United States and Canada, and give you a ***quick, easy*** and ***satisfactory*** round trip.

Possibly you want to go only a few blocks; possibly a thousand miles — in any case, you can avoid the expense, possible waits, delays and disappointments of a personal journey if you will just—

"Take The Telephone Talk Train"

AMERICAN TELEPHONE & TELEGRAPH CO. AND ASSOCIATED COMPANIES — LOCAL LONG DISTANCE TELEPHONE — BELL SYSTEM

NEW YORK TELEPHONE CO.

Digitized by Google

THE TELEPHONE REVIEW

Vol. 4 No. 5 May · 1913

Digitized by Google

Make Your Moving Arrangements By Telephone.

THE TELEPHONE will be of the greatest assistance to you this Spring in lessening the labor of moving. To effect a saving of time and energy that will make moving less arduous and less expensive, let ***the telephone*** carry your messages—

To the real estate agent, the decorators, packers and the moving van or storage company;

To the carpenter, the plumber, the locksmith;

To the gas company or electric company to discontinue service at the old location or turn it on at the new.

By making a liberal use of your telephone ***in every case,*** your moving problem is more easily solved because a large part of the usual work becomes unnecessary.

You will need Telephone Service at your New Location.

Suppose you let us know as far in advance as possible of any removal you intend to make.

NEW YORK TELEPHONE COMPANY

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV | NEW YORK, MAY, 1913. | NUMBER 5

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treas.
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, Attorney
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOCH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor of Recepits
J. A. KENNEDY, Auditor

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor.

VOL. IV. MAY, 1913. No. 5

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

THE Advertising Contest, which was announced in our March number and which closed April 15th, brought out a considerable number of good suggestions. They were first passed upon by a Committee, composed of members of the Advertising Department, and fifteen of the best were submitted to the Judges for final selection. The Judges were J. S. McCulloh, General Commercial Superintendent; R. M. Ferris, Chief Engineer, and J. D. Ellsworth, of the American Telephone and Telegraph Company.

As so many of the suggestions were of almost equal merit, it was rather difficult to decide which were the best, consequently in addition to the prize winners, some of the others were considered worthy of "Honorable Mention."

It was not expected that the text or illustrations could be used precisely as they were presented, but in judging the various suggestions, due weight was given to all factors, such as originality of conception, finish in set-up, as well as the drawing quality of the idea, its business-getting value and its availability when worked into final form for advertising purposes by the Advertising Department.

The final selection and a very brief statement of the main ideas are as follows:

FIRST PRIZE—$10.00—W. E. Johnson, Commercial Department, Madison Square Office, New York City.

Comparison between a full rigged ship with all sails set to catch every wisp of air, and telephone service so complete as to catch the many wisps of business that blow on the seas of trade.

SECOND PRIZE—$5.00—R. S. Sutliffe, Engineering Department, A. T. & T. Co.

"The Spirit of the Telephone," to be shown by illustrations of various persons talking over the telephone with the shadowy form of the persons with whom they are talking appearing nearby, to indicate the idea of how the telephone brings to one the presence of the other person in the spirit rather than in the flesh.

THIRD PRIZE—$3.00—G. W. Hoffman, Evening Manager, Lenox Central Office, New York City.

Sketch of a forceful speaker addressing a meeting with text about the value of telephone service in *talking* everywhere and in every tongue.

HONORABLE MENTION.

W. R. Hoy, Local Manager, Albion, N. Y.

Reproduction of painting "Spirit of '76," with text showing how as in war, science, invention, the men in the lead have set the pace and achieved victory, so in the transmission of intelligence it has been the Bell System that leads.

J. M. Ollweiler, Commercial Department, Mt. Vernon, N. Y.

When the Erie Canal was opened in 1825 it took one hour and twenty minutes to apprise the people of New York of that event by successive discharges of cannon along the course of the canal. To-day, by telephone, messages are transmitted quicker than sound or light travels. The speed of Telephone service.

W. E. Johnson, Commercial Department, Madison Square Office, N. Y. City.

The telephone repeats the voice without losing an atom of its qualities of impressiveness and conviction. It carries your thought, your mind, your personality, yourself.

F. L. Jackson, Assistant District Traffic Chief, Buffalo, N. Y.

You carry life insurance to protect you in case of misfortune; why not have "contentment insurance" by installing a Bell telephone in your home?

F. W. Schmidt, Commercial Department, Hackensack, N. J.

Our Private Branch Exchange Service. The switchboard acts in business the same as the heart in the body. All main arteries lead to it and the circulation flows through them and through the smaller veins, just as business flows through the switchboard to the various departments.

Many suggestions covered too great a scope, and to those who contribute later we would suggest that they endeavor to bring out one forceful thought in each suggestion in a concrete and definite way; also that the ideas should be new, unique, or striking, rather than a modification in a slightly different form of old ideas which have been worked over again and again.

Already a large number of suggestions have been received for the competition which closes on the 15th of May, and we hope that this announcement of the great interest in the first competition, and the success which attended it, will lead not only those who have competed in April and May, but a great many others to send in their suggestions by June 15, for the June prizes.

Every employee, except those in the Advertising Department, will be welcomed as a contributor, and it is

Behind the Little Telephone

SIGHT is the most convincing of the senses. The people see a railroad double-tracking its lines and adding larger and better cars to its rolling stock, and the people applaud. One little telephone is about all that one sees of our great system. What is beyond that little telephone is but little understood.

Behind that little telephone, there stands dedicated to the public service modern equipment representing an investment of hundreds of millions of dollars. There is found there a great army of highly trained employees striving to provide the most efficient telephone service.

Digitized by Google

especially desired that the officials, heads of departments, and all employees who come in contact with the Public, will give the Advertising Department the benefit of their ideas. These in particular are the ones who are most familiar with what it would be most beneficial to the Company to advertise to the public, and since the the Company advertises so extensively, suggestions from them would be of greatest value to the Advertising Department.

We hope this will be an incentive to all, entirely apart from the monetary prizes that are offered.

The winners in the contest closing May 15 will be announced in our June issue.

Public Speaking Made Easy

THE art of oratory, which was so highly regarded by the ancients, and even in the day of Clay, Calhoun and Webster, has few shining examples among modern speakers.

Just as the old style diplomacy has given way to what is termed "shirt-sleeve" diplomacy, so the perfervid oratory of the grand sires of our forefathers has given way to simplicity and directness of speech.

This makes it much easier for public speakers, and consequently there are more of them. The diffidence attendant upon appearing before an audience first having been overcome, the important thing is to keep an audience interested. Confidence comes only from experience, but the matter of keeping an audience interested depends mainly upon what the speaker has to say.

Of course, this is not wholly true, and the best speech can be spoiled by a poor delivery. Practice will oftimes overcome this handicap, too.

There is no better way to acquire the art of public speaking than to appear before friendly audiences and talk upon some subject of common interest.

Public speaking has a fascination for almost every one, probably due to some extent to the fact that so few of us possess the accomplishment. A ready means of acquiring it is provided in the four stereopticon lectures, "The Wonderland of The Telephone," "The Telephone Girl," "The Marvels of a Telephone System," and "Our Most Democratic Institution — The Telephone," which have been prepared for the use of any employees of the Company, wherever they may be located, who have an opportunity to deliver one or all of these lectures at any time.

The telephone is so intimately associated with modern life, and is so wonderful in the part it plays in human affairs, that the interest of any popular audience is secured in advance, and the lectures which have been prepared, together with the stereopticon slides which illustrate them, increase this interest into wonderment, besides being highly educational.

Copies of these lectures and the stereopticon slides may be obtained by any employee upon application to the Division Advertising Managers, who will also co-operate through the local commercial office, in providing a stereopticon and operator, and in other ways, if possible.

These lectures, however, are in no sense advertisements of the Company. So free are they from anything objectionable of this character, that, as we have previously announced, they are being given continuously as a part of the regular lecture courses in public schools and before church clubs and societies, women's clubs, lodges, chambers of commerce and technical societies.

One result of these lectures is a broadening of general information on the part of the audiences, just as may be obtained by hearing Peary or Amundsen speak on their polar discoveries, or similar instructive addresses upon scientific or literary subjects. Our telephone lectures, however, possess an advantage over almost all similar lectures in that they relate to something with which every one is familiar, but about which every one is anxious to learn more.

A benefit which the Telephone Company derives from the lectures is what always follows "information," and that is, a better understanding on the part of the public of what the Company is, its aims and purposes, its policy, its difficulties and how they are met, and what, on its part, it is trying to do for the public.

The lectures have been given in various parts of the territory for two years or more, often with "return dates," and no employee of the Company need feel the slightest hesitation in applying to his Division Advertising Manager for any one or all of the lectures, with the accompanying stereopticon slides, and arranging for as many dates as he can fill.

The Self-Receipting Bill

IN business transactions involving the payment of money from buyer to seller for value received, the use of checks is by no means a modern idea. Delving back into history, we find that this method was in vogue among the Romans and possibly much earlier.

The individual who conducts his business affairs in an efficient and systematic manner as a rule uses a checking account with a bank. He finds that in the course of a year considerable valuable time would be wasted if he counted out in dollars and cents the exact amount of his bills and paid them in currency.

The check is itself a receipt, for in order to be used it must bear the endorsement of the payee before the bank will honor it. It would be an interesting study to consider the various methods used by all peoples of whom we have record to keep account of their payments. In the days of ancient Babylon we find that a stylus was used to make figures on soft clay, which was subsequently baked and preserved. The father of the Roman family kept a waste book (adversaria). Later various kinds of parchment, pieces of wood, walls of rooms and numerous other methods were used. Blackboards also seem to have been commonly used for this purpose. Finally, we come to our more or less modern methods of bookkeeping, including the filing of receipted bills for future reference.

This phase of the matter is well recognized by the New York Telephone Company, which is the pioneer of a method that has already won popular favor. And it is as simple as it is efficient and systematic.

New York Telephone subscribers now find on their monthly bills in addition to the charges for local and toll service, a space for them to write in the number of the check, the bank on which it is drawn, and the date. This bill, with the data on it, is retained by the subscriber, while a stub only is sent with the check to the telephone company.

The advantages to the subscriber of this innovation lie in the fact that but two transactions are involved. These are, the entry on the bill when the check is drawn, and the attaching of the cancelled check to the bill when the bank book is balanced. No longer need he wait for a receipted bill, although if he desires one he has merely to send the bill with his remittance and request the Company to receipt and return it.

If by any chance the question of whether a bill has been paid should arise, the subscriber need only turn to his file of bills and find the check. There is the whole matter in a nutshell.

The favorable comments on this system augur well for its success, and it is one more step in the efforts of the New York Telephone Company to render service to the public in the most up-to-date and quickest manner.

Digitized by Google

Protecting the Service

An Address by F. H. Bethell, Vice-President, New York Telephone Co. Before the Telephone Society of New York, Central and Western Sections.

MY subject is an old one, and I am not sure that I shall say anything in connection with it that you have not heard before, but if I succeed in fixing more firmly in your minds some of the things you have heard before, neither your time nor mine will have been wasted.

"Protecting the service" is the subject I have chosen, nor is there one of greater importance. The importance of it cannot be over-estimated, as, for instance, in the Western Division of the New York Telephone Company we have invested in telephone properties an amount of money approximating $15,000,000. During January of this year you crossed the 100,000 mark in the number of stations connected with exchanges.

In the Central Division, the investment is in excess of $12,000,000; while in the Hudson Division it is close to $10,000,000. The number of stations connected with exchanges in the Central Division approximates 120,000; while the Hudson Division will soon cross the 100,000 mark; a total in these three Divisions of more than 300,000 telephones.

Eastern Group

That part of the Bell Telephone System known as the Eastern Group, which Group includes the New York Telephone Company, The Bell Telephone Company of Pennsylvania, The Chesapeake and Potomac Telephone Company, and their Associated Companies, and serves within the great States of New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia and West Virginia, the District of Columbia, and parts of the States of Connecticut and Ohio, a population of 26,000,000. Within the System there are at this time approximately 1,800,000 telephones, which is about 24 per cent. of the total Bell telephones in the United States. The property investment is in excess of 240,000,000 of dollars, which investment is being added to at the rate of some $30,000,000 per year.

On the pay rolls appear the names of more than 42,000 people. A city made up of 42,000 workers would, with their dependents, make a city larger than the city of Syracuse.

With these figures before you, it is easy to understand that the three interests served are all of great importance: 1st, the public using the service; 2d, the army of employees; and, 3d, the investors who have provided the tremendous amount of money which we have invested, and who will be called upon to provide great sums in the future.

There is no property in existence of more importance than ours, because with it destroyed, the most useful and the most used means of communication would be lost.

The property costing hundreds of millions of dollars serves no purpose other than to provide means of communication between subscribers all within any given exchange or subscribers in one exchange with subscribers in any other exchange. In other words, the property properly managed, maintained, and operated enables us to provide that which we sell to the public, namely, SERVICE. The public wants nothing from us but service, and it demands that that service be of the best. Therefore, one of the important things that we have to do is to protect the service.

The man on the street little knows that constant watchfulness is required not only to protect the service from damaging developments within the property itself, but from the great variety of accessories designed, according to statements of the promoters, to improve the service. These things usually take the form of attachments to the sub-station, the sub-station being that part of the equipment that is within reach of those disposed to experiment.

The sub-station is just as much a part of the machinery through which service is furnished as the cable in the subway or the switchboard in the central office.

Foreign Equipment

A great majority of our subscribers who make, or permit others to make attachments to our equipment have no thought that they are violating their service contracts with the Company, or that they are doing anything that might endanger the efficiency of the service. These subscribers, when the matter is properly brought to their attention, in almost every instance permit the objectionable attachments to be removed. It seems, however, before we are clear of one destructive element, something new appears. For the good of the service, which is for the good of the public we serve, and for no other reason, we must insist always that the only apparatus used in connection with the service is that apparatus which we furnish ourselves.

Compulsory Connection

A much more dangerous practice than the one just referred to is that constantly threatened practice of forcing connection of our lines with any and every type of telephone equipment manufactured. This practice did more than all things else combined to wreck the telephone service in Paris.

The Minister of Public Works in Paris, Charles Dumont, a year or two ago received at his office a delegation of the presidents of various syndicates and others, the purpose of the delegates being to find out the intention of the administration concerning the proposed standard of telephone apparatus. In his reply, Mr. Dumont said as follows:

> Up to the present moment, the vast majority of troubles which interrupt the service are caused much more frequently by the subscriber's apparatus than by line faults or faults in the central office. At present, when a subscriber's apparatus is in trouble and an inspector is sent to repair it, it frequently happens that on account of the many types in use the inspector can only make temporary repairs and that, in a short time thereafter, the old trouble reappears.

It appears from records which I have examined that there are approximately one hundred and fifty different types of telephones in service in Paris, requiring for repair work approximately ten thousand different parts; thus, it is not only impossible to instruct inspectors in the up-keep of the plant, but, of course, impossible if such inspectors could be developed, for them to carry with them the ten thousand different parts required in making repairs.

Station Gains and Losses

Mr. J. A. Stewart, General Manager of the New York Telephone Company, in an affidavit filed with the Public Service Commission, Second District, made the statement (and Mr. Stewart always knows what he is talking about) that during the year 1910 approximately 166,000 stations, including about 4,800 private branch exchange switchboards, were installed in the State of New York; 103,000 were disconnected, and of these about 77,000 represented stations of subscribers who gave up the service. There were about 25,000 outside removals of stations from one location to another. In addition to

Digitized by Google

this, there were about 42,000 so-called inside removals in New York City, and it was estimated about 29,000 additional in the balance of the State. There were 10,000 changes of type of equipment made during the year.

Mr. Stewart called attention to the importance of the measures taken to minimize interruption to the service furnished the 25,000 or more subscribers who find it necessary for one reason or another to have their telephones moved to other quarters. This, of course, to protect the service; to make it continuous not only for those 25,000 or more who are moving, but for the million or more who may want to converse with the lesser number.

In 50 per cent. of the cases, the instrument is installed in the new quarters before the subscriber occupies them; thus, there is no interruption to his service, whatever.

It has been demonstrated beyond a doubt, both in this country and abroad, that the practice of tying together with telephone lines equipment of different design and different make is to put it beyond the control of the management to furnish good service.

Western Electric Equipment Standard

This fact was early recognized by the Bell Telephone Company and, in consequence, there came into existence the manufacturing branch of the business, known the world over as the Western Electric Company. It was understood at the outset that the function of telephone companies amounted to nothing more nor less than providing the instrumentalities for the proper transmission of intelligence, and in order to insure the adoption of uniform equipment, the Bell System undertook the responsibility of the design and the construction of its equipment. That work has since been done by the Western Electric Company, which company is to-day furnishing the world with telephone apparatus.

Methods Standardized

To protect the service, the Bell Telephone Companies are not only guarding their instrumentalities with the greatest care, but they are also all over the country educating and training employees to carry on the work in the organization which is to be assigned them. We have schools for operators, schools for inspectors, schools for salesmen, schools for cable splicers, and many other institutions supported to increase efficiency.

Standard of Service

The requirements of telephone users are so exacting, and the instrumentalities used in furnishing the service, necessarily, so delicate that the highest skill and the most loyal devotion to duty is required of all of us. There are times, as those of you who are familiar with the developments of the past few years know, when, because of conditions beyond human control, the service becomes bad. When, however, investigation brings out the fact that intelligent effort is being made to correct the evils and that the organization will not be satisfied until good service has been permanently established, the public will bear with you during your troubles and in the end applaud you.

Bell Policy Commended

As bearing on this subject, I think it proper to quote right here from a report of a Committee on Telephone and Telegraph Rates and Service made at the Twenty-fourth Annual Convention of the National Association of Railway Commissioners, held in Washington, D. C., November 19 to 22, 1912. The report from which I quote was prepared by the Honorable H. J. Winnett, Chairman Nebraska State Railway Commission.

It will be found generally among the so-called "Bell Companies" that a general and well-defined policy as to maintenance and depreciation has been followed and that as to them the conditions do not vary to any appreciable extent. But there are many other companies which are following plans and policies of their own, unwilling or unable to take advantage of the lessons taught by the practical experience of the past.

How shall we find averages, adjust differences, or make intelligent comparisons between companies whose policies have been so diametrically opposite as the following: First, a company which has endeavored to build substantially, adopting from time to time the latest and most approved instrumentalities and devices known to the art, applying economic and efficient management, making proper provision for maintenance and depreciation, and whose constant effort is directed toward the conservation of the plant, meeting conscientiously its duty in the matter of rendering good service to its patrons and looking to the public sense of justice and the future for ample reward. Second, a company which has adopted makeshift methods of putting together the cheapest class of material, which barely gives service above the quality which would lose patronage, which gives consideration to maintenance only to the extent of merely holding its part together, making no provision for depreciation, and whose hungry stockholders, careless of the future look only to immediate speculative dividends or seek to harass competitors into a forced purchase at large margin over cost rather than to upbuild a permanent and useful institution which, serving its patrons efficiently at reasonable rates, will pay only modest returns.

The picture may to many seem overdrawn, but a study of the history and present condition of the telephone industry will show some companies answering to one or the other description, while the country is strewn with the wrecks of those which have succumbed to a general penny-wise policy. Eventually, in one way or another, the public must pay for such errors or cupidity.

The question before us is, How can we protect the public against such practices and guard it from loss, either in investments or unwarranted duplication of service entailing double costs? Shall we, so far as the law will warrant, refuse to permit competition to exist or to be established, thereby practically lending our energies toward the establishment of a monopoly, or shall we rather bend our efforts toward forcing the delinquent companies to give better service? By lowering rates to fit the poorer class of service and smaller investment, shall we make it unprofitable to continue such policy and thus create an incentive to bring all plants up to their highest possible development and efficiency of service so as to reap the reward of higher rates and assured permanency?

Constant improvement in devices and training of operators has improved service to such an extent that those who have been educated up to it are unwilling to put up with such methods as appeared satisfactory a few years ago. If the average time of getting a connection on a given exchange five years ago was 10 seconds, and has been gradually reduced to 5 seconds, patrons previously well satisfied with 10-second service will not endure it now.

Many additional features are being demanded in service, and it is probably true that the larger telephone companies may be depended upon to keep abreast of developments and the reasonable demands of the public.

There can be no question of the value of the service of the large companies in their efforts to train men as experts along special lines and to test thoroughly every new device as to its practicability before adoption and installation. Thousands of small companies have been built and operated as a "hit and miss" proposition. They have become a dumping ground for semi-obsolete material and devices. In view of the rapidly improving methods, they have necessarily been left behind in the matter of efficient service, and this condition is likely to continue with the weaker companies. This is also further proven by comparison of the maintenance and depreciation accounts of the one class of companies with those of the other. Material of enormous value has been junked in order that new and more efficient methods might be adopted. The number of patents tested and adopted should be sufficient proof of the progressive spirit and the recognition of duty to the public of such companies as have in the past gone so far as to jeopardize their credit with investors by following an up-to-date policy, often at a sacrifice of legitimate dividends to their stockholders.

The Company Protects Its Employees

The one thing above all others in the Protection of the Service comes when the Company and the employee bind themselves to protect one another.

The Company means to protect you. Mr. Sylvan has already told you of the Pension Plan, which Plan is conceded to be the most liberal yet adopted by any industrial organization. As the Chairman of the Committee in charge of the administration of the Plan, for our Eastern Group of Companies, I have the extreme satisfaction

Digitized by Google

of seeing at close range the good work that is being done. Our Committee meets every Tuesday morning and it is a meeting none of us like to miss.

In an army of forty-two thousand employees, even though those employees are properly housed and every known thing done to promote their health and comfort, there is at all times a considerable number of us incapacitated for one reason or another. During the first two months of this year, the Committee passed on and approved payments in 708 sick cases, 297 accident cases, paid life insurance in 12 cases, and allowed pensions to old and faithful employees in 6 cases. That is indicative of what the Company is doing for its employees. The records upon which pensions are based are rapidly being completed and in consequence the number of old employees enjoying pensions, *as a right and not as a charity,* will increase rapidly during the next few months. It has been well said that in providing liberally for its employees, the Company is looking after its own interests.

Nothing could be more obvious. When the interests of the employer and the employee cease to be identical, the whole industrial fabric will fall to pieces.

I have seen, and probably you have seen, men deliberately soldier, but the wide-a-wake man in these times does not soldier. Indeed, he tries, harder than men ever tried before, to improve himself, to make himself more valuable.

Every man should realize that he must capitalize his efforts. If by application and study, he improves himself, he then is worth more to himself, to his family, to his Company, and to the world in which he lives. It may interest you, in fact, it may for the moment amuse you, to know that many officers and heads of departments in our service to-day are enrolled students in Correspondence Schools, the better to fit themselves for the work they are expected to do in the world.

Specialization

You know, of course, that in our great big organization, we are training men to become specialists; here is a Commercial Engineer; yonder is a Traffic Supervisor, or a Plant Accountant, or a Statistician. All of you working steadily toward an executive job. The men in authority in our business came up from the ranks. This will always be so, and the men who rise will be the men who want to rise, the men with the energy and the ambition to drive forward and not the cynical men who on the one hand say it requires "Pull," and on the other hand men who take the position that life is too short to make the effort.

All men, and especially men who are specializing in some particular branch of an industry, require diversion; they require physical exercise, and to insure a broader development of their faculties, they require mental food other than that which comes to them during their office hours. They must read, and they must, above all things, read properly. What to read and how much to read is never easy to determine, especially if one is desirous of keeping in touch with modern thought relative to Business Management.

It is just this assistance that comes to us through properly organized schools.

All this comes under the head of Protecting the Service, and though veering a little bit, but still sticking to my text, I am going to quote from an article appearing in the December issue of the *Title Insurance News:*

The Personal Equation in Business

The personality of a newsboy in Manhattan enables him to sell four times as many papers as his competitors in the same locality. "Good Morning, Mr. Brown, Mr. Smith or Mr. Jones." He says it in a quick, business-like way, as he hands out the paper or papers usually bought. His manner is pleasing. You wonder how he gets your name, and you decide that if he were president of a bank, you would go out of your way to give him your business and take special pains to send your friends there.

But the president of a large and busy institution can not come into personal contact with the majority of the customers of his institution, except indirectly through his employees.

There has been too great a tendency on the part of big business concerns to eliminate the personal equation in the conduct of their affairs. No one builds a business on the assumption that the one-time customers are sufficient to make a permanent success. The money and effort spent to get a new customer is not usually offset by the profit from the first sale to him. That first sale is important because it affords the opportunity to establish continued business relations and in this a great factor is the personality of the salesman or other representative which may either drive a customer away or bring him back.

A certain business organization which for a number of years has paid good dividends on several millions capitalization went into bankruptcy solely because the man who managed it became arrogant, unreasonable and discourteous. Originally he was just the opposite but as the institution grew there came a time when the president seemed to lose his former pleasing and considerate manner. His employees and officials who came in daily contact with him, soon absorbed the same manner and it drifted down through the entire organization.

Customers felt the chill when entering the company's office and in the course of time naturally ceased to deal with it any longer. In one-tenth of the time that it had taken to place it on a firm foundation, the business was a total wreck.

A business enterprise, no matter how big and powerful, should not neglect to keep an eye constantly on the barometer of the personality of its organization. The best way to determine the position of your business is not so much to keep a record of new patrons as to keep track of the old ones.

I have taken the position always that our interest must be centered, first, on the old subscriber. We must see to it that he is properly served, that the Company does not forget him in its efforts to secure new subscribers. I think our policy has appealed to the people and that in America to-day the great majority of them are with us.

Americans are proud of our telephone development which, as was said by Mr. Arnold Bennett in his book "Your United States," staggers the imagination of our English cousins.

Our people know telephone service as no other people know it, and though they use it in the most matter of fact way, they never cease to marvel at the wonder of it.

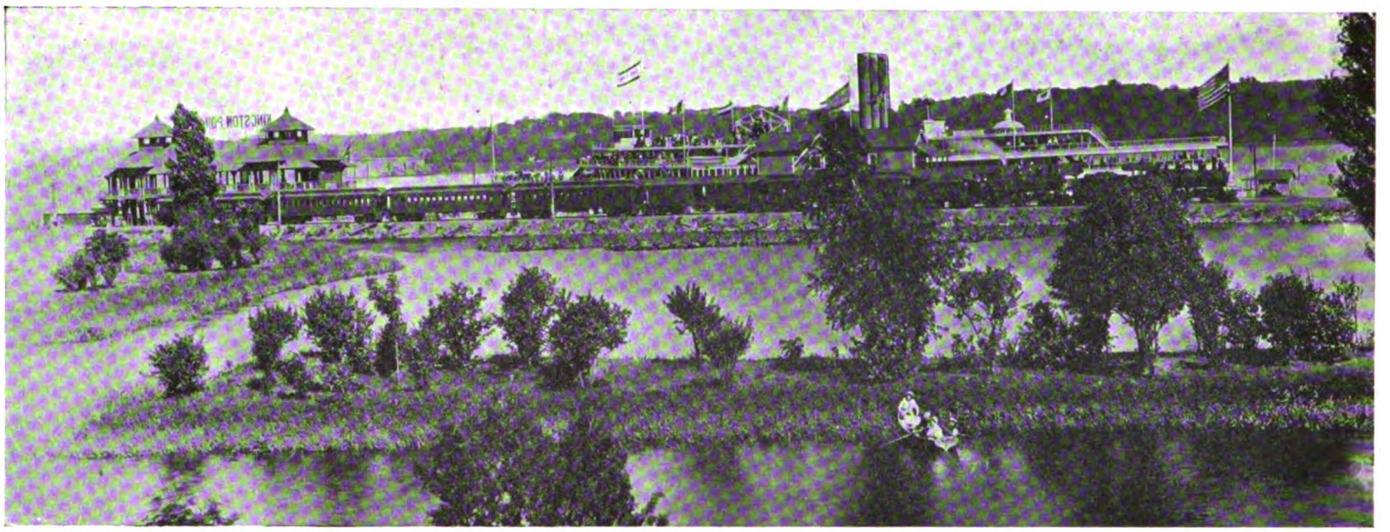
It is yours and mine to be proud of. Yours and mine to protect, to defend, to talk for in the end that the country will know absolutely that we are the people who are giving it its greatest boon, adequate and efficient telephone service at fair and reasonable rates.

More Politeness

ONE of the few things which grate upon one's nerves and that has not been entirely eliminated in the rapid development of the telephone, is the practice of not saying "good-by" or some other suitable closing remark, when finishing a telephone conversation. Many of us have experienced the "click" in the ear caused by the party on the other end of the line slamming the receiver on the hook before we were through talking. It leaves a doubt in our mind whether through chance, we were cut off in the Central Office, or if the conversation is finished. If the remarks are concluded wih a polite "good-by" or something similar, no room for doubt is left. None of us are so busy but that we can sacrifice "lost motion" for politeness, especially when only a word or two is involved. From every angle "The Voice with the Smile Wins," for it inculcates in our minds the real idea of telephony; but the voice that neglects to say a parting word of courtesy leaves a bad impression which retards, to a large extent, the still wonderful rise of an invention whose progress must necessarily be built around *Politeness.*

B. A. CRAWFORD,
Commercial Dept., Newark.

Digitized by Google



KINGSTON PLEASURE PARK AND DAY BOAT LANDING.

Kingston District

R. D. CLEARWATER
Local Manager, Commercial

E. H. GREENLEAF
District Plant Supt.

G. O. MACNABB
District Traffic Chief

AT the foot of the Catskills, and back from the Hudson River, lies the City of Kingston. The stranger approaching the city by water or rail, gets a very poor idea of it, the railroads passing through the usual dirty section and the river being at the extreme eastern edge, but after he gets into the city proper and travels around its 110 miles of streets he begins to see what a beautiful city it is, three miles in length and four miles in width.

A City of History

The Esopus Indian here reigned supreme until shortly after 1640, when three pioneers decided that the spot would make a beautiful place for a settlement, and one of the three forts by order of the States General of Holland was built on the river's edge. From this fort, which was a redout, the lower end of the city derives its name, Rondout.

The upper portion of the city has undergone various changes of name, from Esopus, Indian, to Wiltwyck, a Dutch possession, then to Kingston, by the English. Finally, in 1875, the villages of Rondout and Kingston, together with Wilbur, were amalgamated and incorporated into one city, the City of Kingston which to-day has a population of thirty thousand.

It was here that Peter Stuyvesant, the first Provincial Governor, ruled; here the first Governor of the State of New York, George Clinton, was inaugurated at the old Court House, and the first Senate met at the old Senate House. Both places may be seen to-day, in nearly their original architectural designs. The Senate House, now State property, contains relics of the aboriginal and revolutionary periods.

Destroyed by Fire in 1776

Kingston's early days were very strenuous. Due to its strong patriotism, it was considered by the British authorities in the colony, as well as by King George, to be the hotbed of revolution, and for this reason, while her able-bodied men were at garrison duty on Staten Island and no one was left in the village but defenceless women, children and elderly men, the torch was applied, and their homes destroyed on October 16, 1776, by British troops under General Vaughan, and the sloop of war, Vulture. This event still rankles in the breast of the older inhabitants. Only one house escaped. It is marked appropriately with a tablet, and tourists and sightseers can read the story of its survival thereon. Many of the old stone houses are still standing as they were rebuilt.

Kingston as a Place of Residence

Kingston has become a delightful city in which to reside. There is something about the place that is alluring and makes you want to stay, and many who, for some reason are compelled to leave the place temporarily, find their way back. The social life is a charming one; the old Dutch hospitality is very enjoyable, many of the old Dutch customs still surviving. Its churches, of which there are many, are beautiful ones.

Manufacturing Industries

Kingston has a number of important manufacturing industries, given, to a certain extent, to the employment of women. It has several large cigar factories and shirt factories, and other industries have recently been established, which give great promise that the day is not far off when it can rank with its sister cities in the industrial line.

Telephone Service Established in 1878

The telephone development in this city has been gradual but steady. Public telephone service was established in the year 1878,—shortly after Alexander Graham Bell had shown his invention at the Centennial Exposition in Philadelphia. A firm of wholesale and retail druggists, the Van Deusen Brothers (by the way, the largest in that day of any business of like character along the Hudson River), with stores both in Rondout, the lower section, and Kingston, the extreme upper business section of the city, had a great many occasions to communicate between them. They established telephone apparatus in their two stores and connected the instruments by means of grounded line, over roof tops, on trees, telegraph poles, etc.—in fact, any way to get the wire between the establishments. A crude kind of connection was made; at times they were able to talk and at times they were not, but they did communicate and saved traveling or passing of memoranda from one end of the town to the other. A charge of ten cents

Digitized by Google

was made to the public for talking on this line, which was approximately three miles in length.

First Telephone Exchange

Two years later the first telephone exchange in Kingston was opened by Winter Brothers, another firm which had business places in both ends of the city. They conducted a stationery, newspaper and periodical store and in addition did the largest part of the trucking and express business of the city. A twenty drop switchboard was installed in each store and five trunk lines connected with them.

In the year 1886, the Hudson River Telephone Company opened up two central offices, buying out the Winter Brothers and removing the switchboards to rented quarters, the Rondout office being established in the Kennedy Building and the Kingston, or uptown office, in what was known as the Cross-

TAPPEN HOUSE, NOW OWNED BY THE DAUGHTERS OF THE AMERICAN REVOLUTION.

HOFFMAN HOUSE, ORIGINALLY BUILT 1660, DESTROYED BY THE BRITISH TROOPS, AND RESTORED, WINTER OF 1777.

by Building. It started with one hundred and ten telephones, including those served in Saugerties, Ellenville, New Paltz and Lake Mohonk. This was the beginning of telephone exchange service in the entire Kingston area. It was under the direction of Charles Quackenbush, who was succeeded in turn by Simon Newland, Frederick B. Heminway and Edward H. Greenleaf until March 1, 1906, when Ralph D. Clearwater became Local Manager.

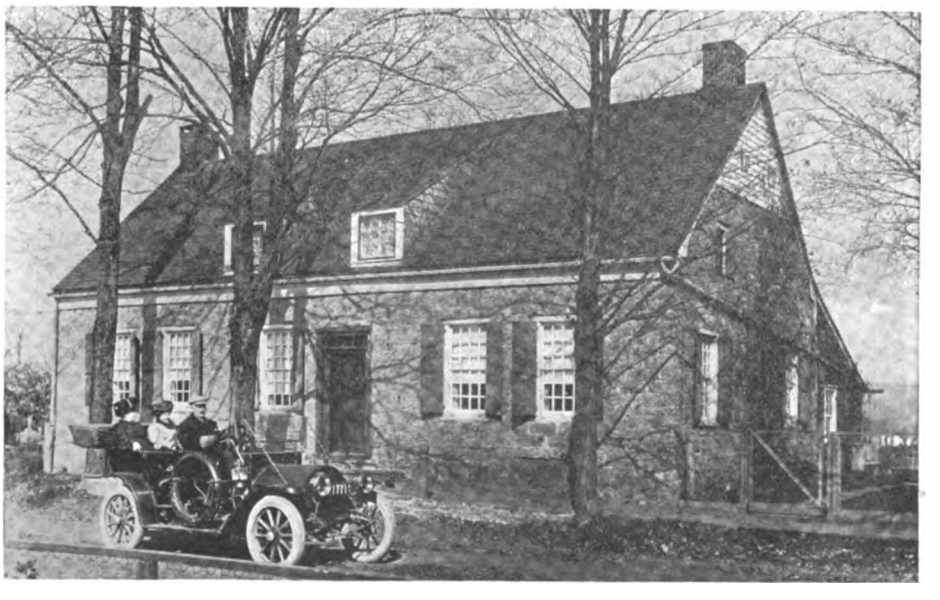
The Hudson River Telephone Company was sold to the Central New York Telephone and Telegraph Company, subsequently purchased by the New York Telephone Co.

District Headquarters

Kingston is the Southern District (Hudson Division) Headquarters. This district includes the exchanges at Esopus, High Falls, New Paltz, Phoenicia, Rosendale, Saugerties, Shokan and Woodstock. The area covered includes a territory which extends twelve miles to the south and eighteen miles to the north, along the river from Kingston and up into the mountain district, as well as down into the southern and western section of Ulster County. The rural development has been given a great deal of attention, and constant additions are being made to the rural lines. A number of new developments are now under way.

Plant Improvements

During the past three years about $35,000 has been spent in Kingston to provide new underground cables in the business section and replace exchange poles and small aerial cables in the residential sections. It was aimed to



OLD HOUSE AT HURLEY, THREE MILES FROM KINGSTON. IT WAS TO THE VILLAGE OF HURLEY THAT THE INHABITANTS FLED WHEN KINGSTON WAS BURNED BY THE BRITISH, OCTOBER 16, 1776.

Digitized by Google

ULSTER COUNTY COURT HOUSE. SCENE OF INAUGURATION OF GOVERNOR GEORGE CLINTON IN 1743. TABLET BETWEEN LOWER WINDOWS AT RIGHT OF PICTURE PLACED BY THE SONS OF THE REVOLUTION COMMEMORATING THIS EVENT.

do a permanent job in placing the cable and reconcentrating the loops so that the maintenance troubles and expenses would be less. The plant work now consists largely in making gradual additions to the aerial cable plant, building drop loops, maintaining the existing plant and removing the old.

The Tree Problem

Like many other river towns, there are continuous rows of trees on practically every residential street, and these are one of our greatest sources of trouble. A great deal of thought was given to the tree conditions before the work was started and while it was under way. The new messenger and cables were threaded through the trees with care and all of the large limbs avoided, so that not a single extension fixture was used. The abutting property owners commented favorably on the quiet, orderly telephone "gang" and the way they handled the work. The deference these men paid to the property owners and the respect they showed for the trees have helped to maintain our reputation of being careful in our dealings with the public.

Permission was secured to trim, and limbs were sawed close to the trunks and the stumps painted. This cable work has reduced the average length of loops from 350 feet to 200 feet.

Building the Loops

Formerly, a gang consisting of a foreman, two linemen and a ground hand were used to build the loops. About two years ago we set a standard for this work that was, briefly, to build loops at lowest cost good for ten years. The present labor cost per loop is about one-half what it was three years ago.

The Reformed Protestant Dutch Church, Kingston, One of the Oldest Congregations in the United States. The Present Church Building Stands in the Old Grave Yard. Governor George Clinton Monument at Extreme Right of Picture.

A lineman and helper using a single rig build the loops, deliver the instruments, make disconnections and take care of minor repairs that are reported for Plant Orders by the Wire Chief who makes a systematic inspection of the cable plant, covering some portion of it one-half day each week.

Improving the Service

The work of removing parallel pole lines and cables has been going on since last fall. In the country there are two pole lines on practically every road; these are being consolidated over the best right-of-way; subscribers are being re-grouped, and the service is to be changed from common battery to

NEW YORK TELEPHONE BUILDING, 449 BROADWAY, KINGSTON, N. Y.

Digitized by Google

magneto on the long lines extending into the country. When this work is finished, maintenance troubles will be less frequent, the appearance of the streets will be improved, and the service will be more reliable.

LOOP GANG IN ACTION.

TOLL BOARD, KINGSTON CENTRAL OFFICE.

Kingston Central Office

The Kingston Central Office is the outlet of a considerable portion of the Catskill Mountain traffic, which assumes large proportions between June and September of each year. During this season, Kingston as well as Griffin Corners, Tannersville, Ellenville, New Paltz, Shokan, Phoenecia and several other important toll centers in the mountain territory, handles more than double the amount of toll traffic disposed of during the same length of time at other seasons of the year. The average load handled by the Kingston operating force, is 18,000 local calls per day, 2,100 of which originate during the busy hour. The outward toll calls handled per day average 500.

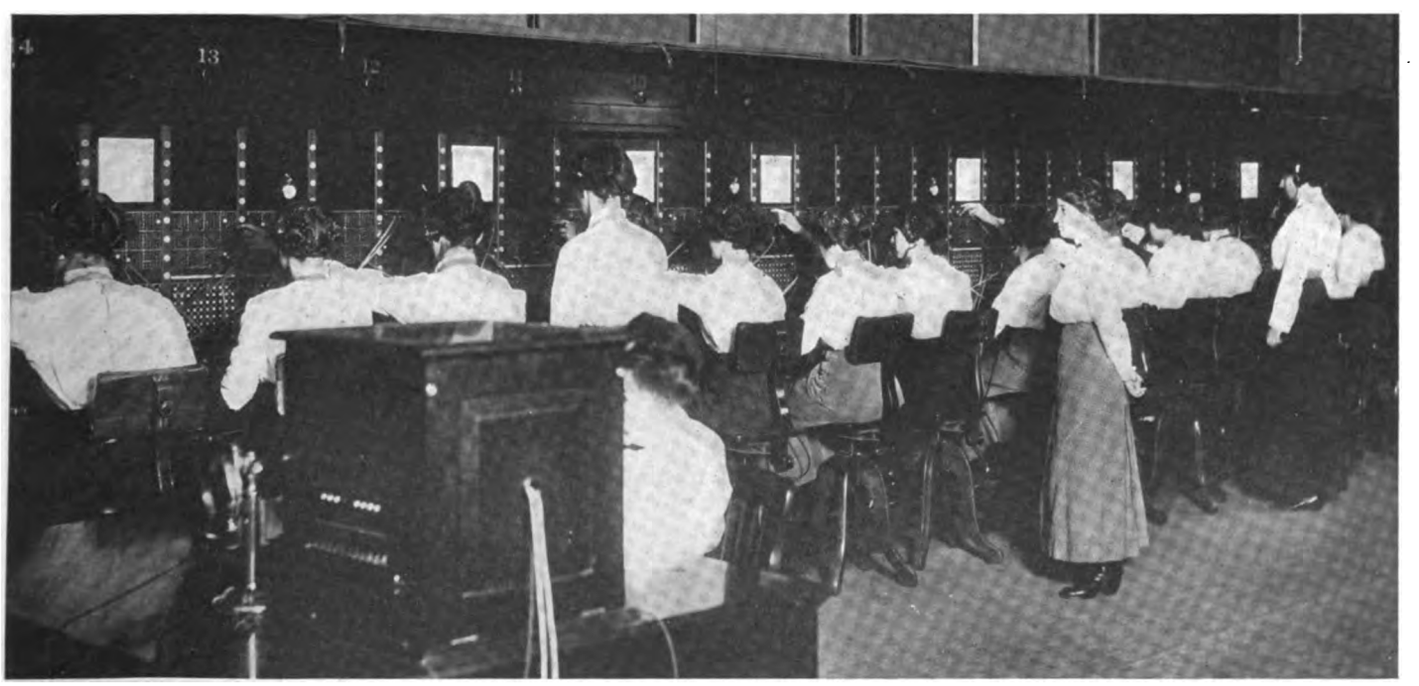
At the present time there are employed in this office, a central office clerk and 36 operators, including the Chief Operator, four Supervisors, two Information Operators and a traveling Supervisor. Seven student operators are now under training for the summer season.

The retiring room is one of the most important accessories to the office. It is utilized greatly by the operators, as many live at a considerable distance from their work and bring their lunch each day. Everything necessary is provided to make the quarters attractive and comfortable.

Fostering Co-operation

Kingston as the headquarters of the Southern District, has direct supervision over nine company operated, twenty-two agency and six semi-agency offices. Periodical visits by the District Traffic Chief and occasional visits by the Traveling Supervisor help to keep the agency and semi-agency offices in touch with the life of the larger offices, and a spirit of coöperation is thereby engendered.

The service inspection afforded at Kingston and under the management of the Division Manager of Traffic In-



LOCAL BOARD, KINGSTON TELEPHONE EXCHANGE.

Digitized by Google

spection at Albany, has become an indispensable factor toward maintaining an efficient grade of service.

Increase in Tariff Facilities

The trunk provision for the year 1913, affords 17 additional trunks to be constructed by the New York Telephone Company and 3 additional A. T. & T. trunks. With these additional facilities, traffic will be handled with far less delay than at any previous time.

The station growth of the Kingston Exchange is shown by the following table:

1885	110	stations
1890	206	"
1900	780	"
1905	1246	Stations
1910	2079	"
Jan. 1, 1911	2225	"
Jan. 1, 1912	2605	"
Jan. 1, 1913	3294	"
Apr. 1, 1913	3370	"

During the recent activities of the City of New York in this section, building the great Ashokan Reservoir and Aqueduct, our exchanges enjoyed unusual prosperity in the way of revenue and traffic due to the considerable requirements of not only the Board of Water Supply of the City of New York, but of the various contractors interested in the work, which would form a complete story in itself.

Recently members of various clubs and church organizations have been invited to visit the Central Offices in the Kingston District, with very satisfactory results. There have been representatives from twenty-two different church organizations, with a total attendance of three hundred and sixty-three. These people were very much interested, and many were the expressions of surprise and commendation on the manner in which the work of rendering telephone service is carried on. Very few had any conception of just how a telephone call is handled at a central office and these receptions have been a great help in educating the public and obtaining their co-operation.

The Telephone Society of New York

Main Section

THE April meeting of the Main Section of the Telephone Society of New York, held on the 23rd, afforded an unusual opportunity for members to learn some interesting facts concerning the actual manufacture and development of telephone equipment.

After two selections by the Blue Bell Orchestra, the meeting was called to order. Thirteen new members were duly elected. President Cox then announced with regret that circumstances made it necessary to abandon the repetition of the play "Examinations," so successfully presented at the reception to The Telephone Pioneers of America last November.

President Cox stated that the annual meeting on May 20 is to be a "rouser." Officers will be elected, and the chairmen of the Up-State Sections will be present. The papers to be read are to be fifteen minute ones on Plant, Traffic, Commercial and Accounting Work in the Up-State divisions. Last, but not least, there will be an entertainment and refreshments. In short, the meeting will be the grand wind-up of the Greater New York Telephone Society for 1912-1913.

The preliminary business over, Mr. E. B. Craft, Development Engineer of the Western Electric Company, read an interesting and instructive paper, illustrated by lantern slides, on "The Engineering Laboratories of the Western Electric Company; Their Problems and Their Relation to the Telephone Business." He took his audience "behind the scenes," so to speak, and opened their eyes to the intricacies and details handled by this department of his company.

Mr. Craft's paper was followed by supplementary remarks from Mr. J. L. McQuarrie, Assistant Chief Engineer, Western Electric Company, and Mr. R. M. Ferris, Chief Engineer, New York Telephone Company.

The meeting then adjourned, and as President Cox expressed it, "the band played us out."

Central Section

THE Central Section of the Telephone Society had the most enjoyable meeting of the season on the evening of April 29. The success of the evening was due not only to the excellence of the papers, but to the fact that the form of the meeting was a radical departure from the usual. As the season is drawing to a close, it was thought best by the directors to attempt a Society dinner, and notices were, therefore, sent out with return cards, with the request that members advise us whether or not they would be present. Nearly 100 affirmative cards were returned, and arrangements were made for dinner at Gabel's, one of the famous Syracuse German eating houses, on the "North Side."

During the dinner vocal music was furnished by the newly discovered Plant Quartette, composed of Messrs. Lane, Sadler, McPherson and Benjamin. They were assisted in the choruses by the whole assemblage; and piano music was furnished throughout the evening. The musical part of the program was a huge success, and a hearty vote of thanks was given the volunteer vocalists.

The paper was delivered by L. D. Layton and E. J. Buchaca of the Plant Engineering Department. Mr. Layton confined his address to engineering in connection with toll circuits, and his paper was most studiously, instructively, and entertainingly written. Mr. Buchaca's paper dealt with plant engineering in general, with special reference to building exchange plants. It was illustrated by nearly 50 views, which were thrown on the screen by means of a radiopticon. After the papers, remarks were listened to from Messrs. Fox, Division Plant Engineer; Kennedy, Division Superintendent of Traffic; Gillespie, Chief Foreman of Cable Construction and Maintenance; and Shepard, Division Sublicense Manager.

Western Section

THE 14th meeting of The Telephone Society of New York, Western Section, was held in the new Telephone Building, Buffalo, on April 17, with 125 members present.

During the regular course of business, Vice-Chairman Mott, who presided, announced the membership as being 448 and that the Section funds amounted to $549.22. One new member was duly elected.

The Secretary read a letter from Mr. J. L. Parker in which he resigned as a member of the Section on account of his transfer to Syracuse. A resolution expressing the regret of the Section in losing Mr. Parker was unanimously adopted.

The Secretary then read the report of the nominating committee and upon its recommendation the following officers were elected unanimously for the ensuing year: V. C. Mott, Chairman; H. W. Gaul, Vice-Chairman.

Mr. C. A. Spaulding, Chairman of the Papers and Meetings Committee, announced that Mr. Hiss would be our next speaker and hoped the Western Section would give him a rousing reception.

Chairman Mott then introduced the speaker of the evening—Mr. W. J. O'Hea, District Manager, Rochester, who spoke on "The Business End of Our Business from the View Point of a District Manager."

Mr. O'Hea was followed by remarks from Messrs. Stephan, Billings, Davey, Lillich, Healey, Mackenzie, Spaulding, G. C. Allen and T. T. Ramsdell.

Digitized by Google

MISS BAUMANN, DAY OPERATOR.

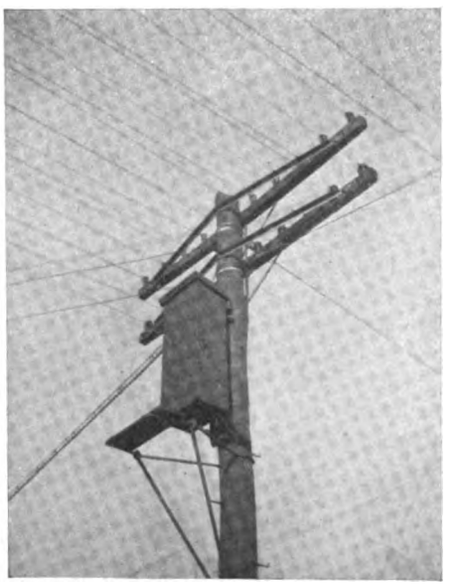
CHARLES F. GOURLEY, IN CHARGE OF PLANT.

Middlesex Telephone Company

THE December, 1912, issue of *The* TELEPHONE REVIEW contained an article on the Middlesex Telephone Company, one of our most progressive connecting companies.

It has a central office at Monmouth Junction, New Jersey, and furnishes continuous telephone service to the inhabitants of a territory covering approximately 75 square miles. At present the company operates about 139 stations. During 1912 it secured a net gain of 26 stations and expects a greater one this year.

The accompanying photographs give a good idea of this company and its equipment. The new $3,500 building is used also as a residence by Mr. Charles F. Gourley (on the motor-cycle) who has charge of the plant and serves as night operator. At the switchboard is Miss Elizabeth C. Baumann, the day operator, who takes pride in giving service which is as good as that in the big cities. The switchboard is a one position, one hundred line magneto.



The remaining pictures show the company's well kept pole line and the cable running to the central office.

This company is an excellent illustration of what the telephone means to rural communities. It banishes isolation by making neighbors of those who live miles apart; it enables the farmer to buy and sell to the best advantage by putting every market within his call, and protects him in every emergency.

SECTION OF WELL KEPT POLE LINE.

COMPANY'S BUILDING.

Digitized by Google

Development of the Telephone in Hackensack

IN 1882 the first switchboard, which was of magneto type with capacity for 25 lines, was installed in Hackensack, N. J. It was placed in the office of George Hasbrouck, at No. 179 Main Street, who also conducted a sewing machine business. Miss May Teck Bates, now Mrs. T. Voorhees, of Little Silver, was the first day operator and Mr. William Herbert the first night operator employed. At that time subscribers were rung with a machine somewhat similar to a sewing machine, which was worked by foot power.

1884—1906

In 1884 the switchboard was moved to the office of E. A. Pearce at No. 181 Main Street, the number of subscribers at that time being twelve.

On May 1, 1887, the switchboard was again moved to the office of John J. Fink at No. 178 Main Street, now No. 196 Main Street.

During the latter part of 1892 an active canvass for new subscribers was started by Mr. Fink, who sent John Rergren out to secure the business, the result being that in 1893 there were nearly fifty subscribers. The exchange grew slowly from 1893 to 1900, when the Hackensack Telephone Directory showed about 225 subscribers.

In 1900 the switchboard was replaced by a larger magneto switchboard and Mr. Fink turned over the management of telephone affairs in this vicinity to the New York and New Jersey Telephone Company. The work of the Commercial Department was handled at that time partly by the Treasurer's office in Brooklyn and partly by the Contract Department in Jersey City.

In 1906 a branch of the Treasurer's office was opened in the Barkman Building on Main Street and was occupied partly by Treasurer and Contract Department representatives.

In May 1908 the Commercial Department was established and the headquarters of the Telephone Company were removed to the Bergman Building at No. 183 Main Street. Business grew so rapidly that in 1910 it became necessary to seek larger quarters. The office was accordingly moved to No. 178 Main Street, where the Company had occupied operating quarters since 1887.

Common Battery System in 1907

During the period in which these changes and additions were made to the switchboard equipment, the outside plant in Hackensack was entirely rebuilt several times and enormously increased in capacity and amount of territory covered.

In 1907 the common battery system replaced the magneto system and a new switchboard was installed which has been superseded by one of the latest type.

Plant Improvements

Previous to 1900 the telephone wires were carried singly upon cross-arms attached to highway poles. The number of wires in the center of the town having become excessive in that year, 4.1 miles of subway and underground cable were constructed, including a conduit along Main Street and Essex Street to the New Jersey and New York Railroad. Since 1900, 2.2 miles of additional subway have been constructed so that at present there exist 6.3 miles containing 24.6 miles of single duct. In this subway underground cables have been placed, ranging from 200-pair to 600-pair and aggregating in all 4,400 miles of wire.

Within the last two years, in order to keep pace with the growth of the business, to better the service and to improve the appearance of the telephone construction on highways, the Company has expended for the construction and reconstruction of its outside plant the sum of $112,000.00. Most of this expenditure has been for subways, underground cable and for aerial cables which replaced single arms and cross-arms. By the new construction the Company has been enabled to remove approximately 1,000 ten-foot cross-arms and 200 miles of single wire from the public streets. By its arrangement with the Public Service Electric Company for the joint use of distributing pole lines, it has been possible to remove from the streets of Hackensack 129 poles, which represented duplications of pole plant by the two companies.

The New Building

The Company's new building recently completed is a three-story and basement structure and stands on a lot 35 ft. by 190 ft. It was erected by Chas. H. Beckwith from plans and specifications prepared by the Engineering Department of the Company and represents an expenditure of $32,000,00.

The basement of the building contains the cable vault, the storage batteries and the gas engine charging plant.

On the first floor front the Commercial and the Western Union Telegraph Company's office are located. In the rear is the office of the General Plant Foreman.

On the second floor, in the front of the building, are located the Wire Chief's quarters, the main and intermediate distributing frames and the power dynamo. In the rear of this floor are the operators' quarters, consisting of locker, dining and retiring rooms, all conveniently arranged.

On the third floor is the new switchboard, which is a No. 1 common battery relay switchboard with four-party superimposed ringing. It has a capacity for subscriber lines of 10,500, but it is equipped at present for only 2,100; a capacity for multiple trunks of 960, equipped at present for 140, a total answering jack of 2,180, 1,382 working subscriber lines and 3,079 stations—a total of all classes of trunks of 89. The switchboard has fifteen "A" positions, two "B" positions and one position used as a testing section. (The above figures are as of April 19, 1913.)

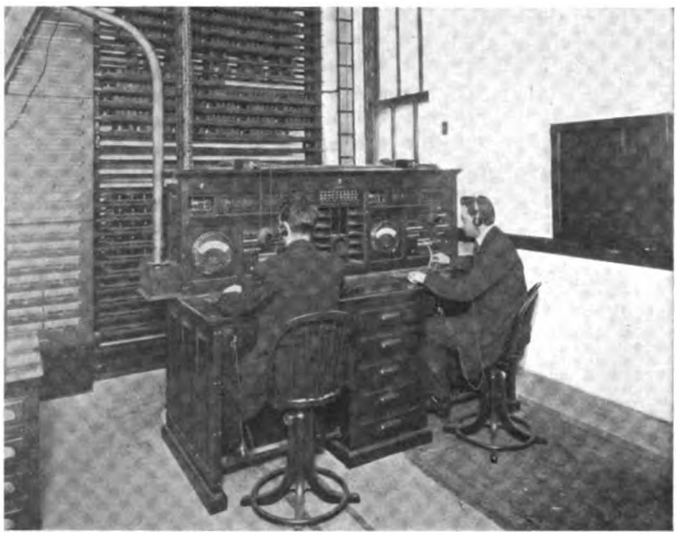
Cut-over on April 19

The "cut-over" from the old exchange to the new occurred on Saturday, April 19, and on Saturday, April 26, one week later, 1,800 persons took advantage of Local Agent George H. Howell's invitation to inspect the new Telephone Building. One of the Hackensack papers, commenting on the reception, said as follows:

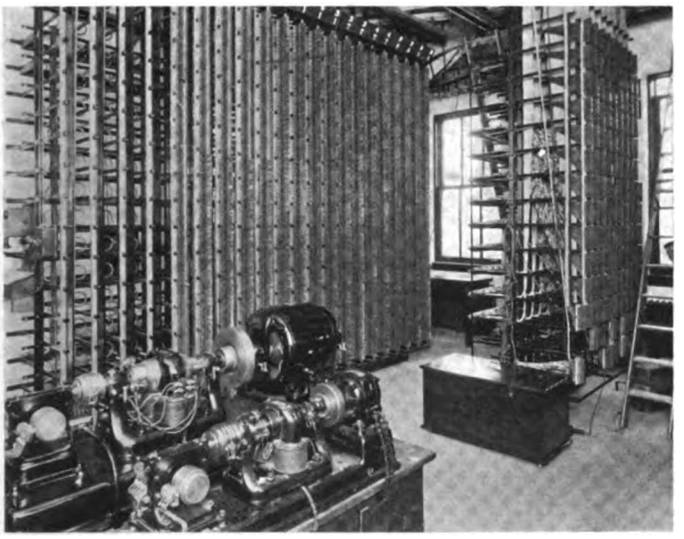
"Expressions of surprise and admiration were heard on all sides. As one prominent citizen expressed himself, "I greatly appreciate Mr. Howell's invitation to come here to-day, for it has given me an opportunity to see what lies behind the small little telephone instrument and see what happens when the receiver is lifted from the hook. I had no idea that the business of rendering efficient telephone service was so complicated. Certainly the Telephone Company is to be congratulated on the excellent new building it has given to Hackensack and more particularly on the splendid equipment that it has provided to take care of Hackensack's telephone traffic."

Digitized by Google

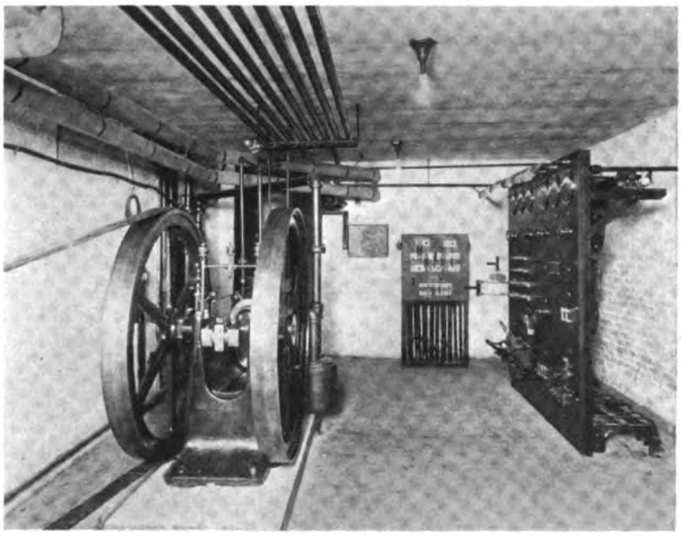
COMMERCIAL OFFICE, NEW YORK TELEPHONE CO., HACKENSACK.



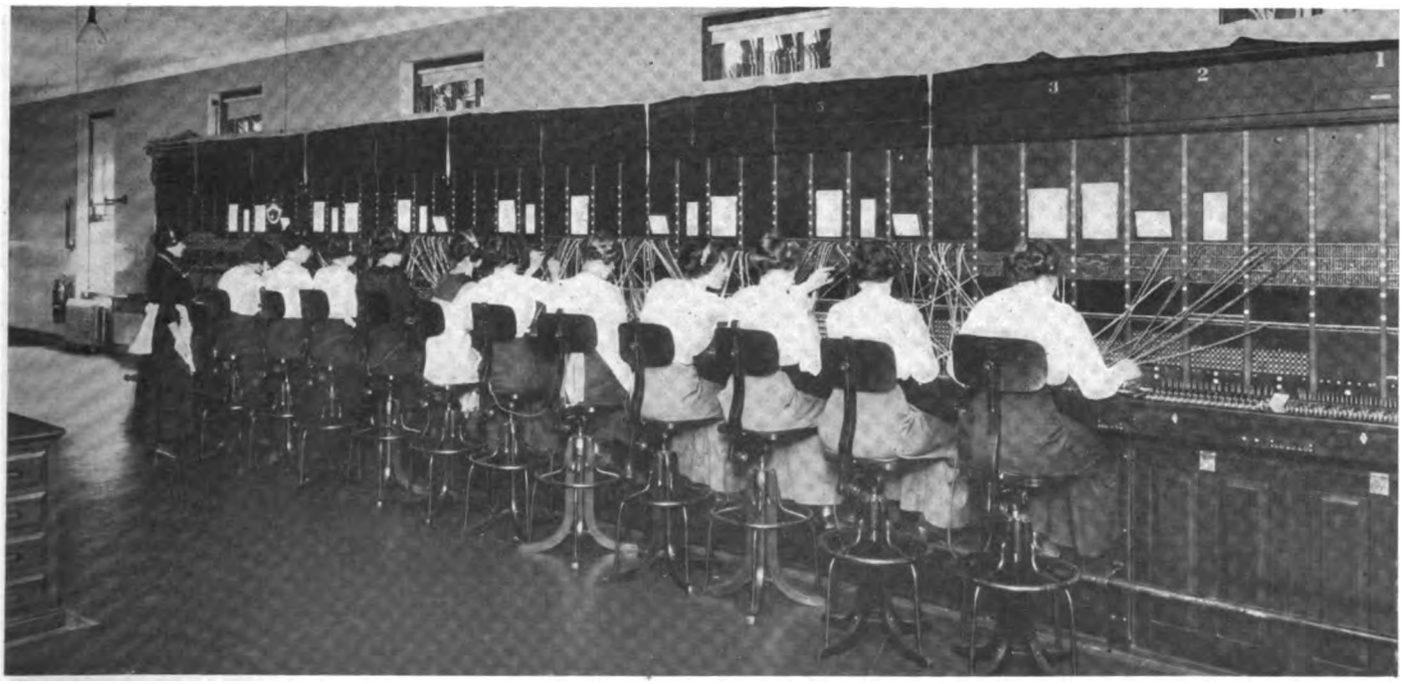
WIRE CHIEF'S DESK, HACKENSACK.



MAIN AND INTERMEDIATE FRAMES AND DYNAMO.



GAS ENGINE, CHARGING AND POWER BOARD, HACKENSACK.



CENTRAL OFFICE, HACKENSACK, N. J.

Digitized by Google

Public Utilities and Public Policy

PUBLIC Utilities and Public Policy" is the subject of an article by Theodore N. Vail in the *Atlantic Monthly* for March. Mr. Vail discusses the fundamental principles of this subject and draws the inevitable conclusion that efficiency in telephone service depends upon one universal system under Government control and regulation.

The net revenue received by a public utility corporation in return for its service or commodity must, in Mr. Vail's words, "be sufficient to pay a fair return upon the cost of the plant, and of the organization and establishing of the business." Although "net revenue can be produced in two ways; by a large percentage of profit on a small business, or a small percentage of profit on a large business," yet "the experience of all industrial and utility enterprises has been that it adds to the permanency and undisturbed enjoyment of a business, as well as to the profits, if the prices are put at such a point as will create a maximum consumption at a small percentage of profit."

The rates whereby a public utility obtains its revenue vary under existing conditions, but "a uniform rate is an advantage to the community as a whole, in that it gives to all equal facilities, as near as may be, at a uniform cost. It is equitable in that the highly developed centres are dependent on the country as a whole, and, therefore, should contribute toward this policy of equal facilities at uniform cost; but it is inequitable if, without remedy, any utility is obliged to furnish service below cost at uniform rates established on an average cost which includes utilities more favorably located."

"The inevitable conclusion is, therefore," writes Mr. Vail, that if uniform rates are to prevail in any utility system, that system must tend to combination and to a single system or monopoly, if you please, if a highly developed, highly efficient, and progressive utility is to be maintained."

Mr. Vail discusses at length the various effects of competition and its causes, among which are a number of legitimate incentives, and also such objects as "to create by destructive and aggressive tactics such a situation as will force a settlement by purchase, combination, or an understanding of some kind, with an established business; or to promote a business upon the reputation and success of others and sell it to innocent investors upon misleading statements, either willful or mistaken."

"The vicious acts associated with aggressive competition are responsible for much, if not all, of the present antagonism in the public mind to business, particularly to large business." Competition is encouraged by the public because they believe they will derive some benefit, which, however, has never come from destructive competition, for "the settlements of competitive wars always affect the public unfavorably. When prices are restored, even to a normal and reasonable basis, they are in constant contrast with the cut price of competitive war, and the consumer is constantly reminded of the differences and resents them." A mistaken popular belief is that competition brings about permanently reduced prices and charges; on the contrary, they are the result of conditions that cut the producing cost.

"Competition can only exist where there are abuses, either in the way of unreasonable profits or of excessive capitalization; and where control and regulation are effective, these abuses cannot exist or continue." Mr. Vail touches on the regulation and control of public utilities by commission and says that to attain success there must be "a thorough coöperation between the public, the commissions, and the corporations, with confidence, deference, and dependence, and absolute frankness on every side."

Regarding the question of franchises, we learn that "The old and proper idea of franchise put the public on the basis of a partner, in a partnership between the public, the capital, and invention or utility, and the individual. The intent or theory was that each should get its fair share of the benefits; the promoters and inventors, upon whose initiative, enterprise, and risk, something of great public benefit was introduced, profits in money; the public, something to their material advantage, in comfort or well-being." Public confidence has been abused by schemers seeking franchises and paying more attention to their combinations than to the service of the people. Soon, however, the public realized that they were master of the situation, and the pendulum swung in the other direction; until, to-day, the attitude of the public inclines toward imposing many restrictions.

Passing from public utilities in general, Mr. Vail discusses one in particular, of which he says: "The relation of the telephone system to the public is unique in that there is no other public utility or public service which occupies quite the same personal relation to the public that the telephone does." He speaks of the unpropitious circumstances under which it was invented, and of the early struggles of the Bell companies to maintain their position in spite of their encroaching competitors, whom they eventually out-distanced through superlative service and the "policy of intercommunication."

"The public has begun to appreciate and believe that the telephone service is a 'natural monopoly'; that any telephone exchange must give universal service—from every exchange and every subscriber as a centre in every direction to the farthest talking limits; that one telephone system is sufficient, and more than one a nuisance; that a telephone conversation cannot be transferred from one system to another and therefore that every one desiring service must be connected with the same system; that the telephone service as carried on by the Bell system is one of that class which has no alternative and no substitute.

"The practice of the Bell system is founded on the following statement of policy: To develop the possibilities of the service and to give the best possible service; to anticipate all the reasonable demands of the public as to service, either as to quality, quantity or extent; to distribute the charges for such service in such a manner as will make it possible for every one to be connected who will add to the value of the service to others; to collect gross revenue only sufficient to pay a fair dividend on the capital invested, after paying the fairest possible wages for the best service, after providing sufficiently for the maintenance and reconstruction of the plant, whether from decay or from obsolescence."

Answering the query, "How best can the ideal telephone service be obtained?", Mr. Vail concludes: "There seems to be no question, judging from experience, that the present way—private management and ownership, subordinated to public interests and under rational control and regulation by national, state, or municipal bodies—is the best."

Digitized by Google

Building Operations

Arlington Building

A CONTRACT has recently been awarded to the E. E. Paul Co. of No. 1 Madison Avenue, New York City, for the erection of a two-story and basement building 40 feet front and 55 feet deep, at Nos. 112-114 Midland Avenue, Kearny, N. J., from plans prepared by the Engineering Department, this building to be known as the Arlington Central Office. The building is so designed that two stories may be added as well as an extension to the rear.

Kearny, or Arlington, as the exchange district is known, will require relief or additional equipment during 1913, and while it is possible to add to the present equipment, the studies made in the Engineering Department show that it would be more economical to construct our own fireproof building and install a common battery board at this time.

At present there are about 374 lines supplying 804 stations in this district, and it is estimated that in about 8 years there will be about 1,500 working lines.

The plans for the building provide for the usual gas engine room, cable vault, heating equipment and small storage space in the basement, the terminal room and Commercial office on the first floor and operating room and operators' quarters on the second floor.

The brick for the front of the building will be an art tapestry laid in Flemish bond with raked joints, and the trimming will be light buff Indiana limestone.

Considerable study has been given to the fireproofing of this building in connection with giving adequate protection to our apparatus as well as to the occupants of the building. One of the notable features along these lines consists of making the walls of the corridors considerably heavier than the ordinary partition walls, installing hollow metal fire doors so that anyone having occasion to pass through the halls during a fire will be protected to a greater extent than is usually the case in office buildings.

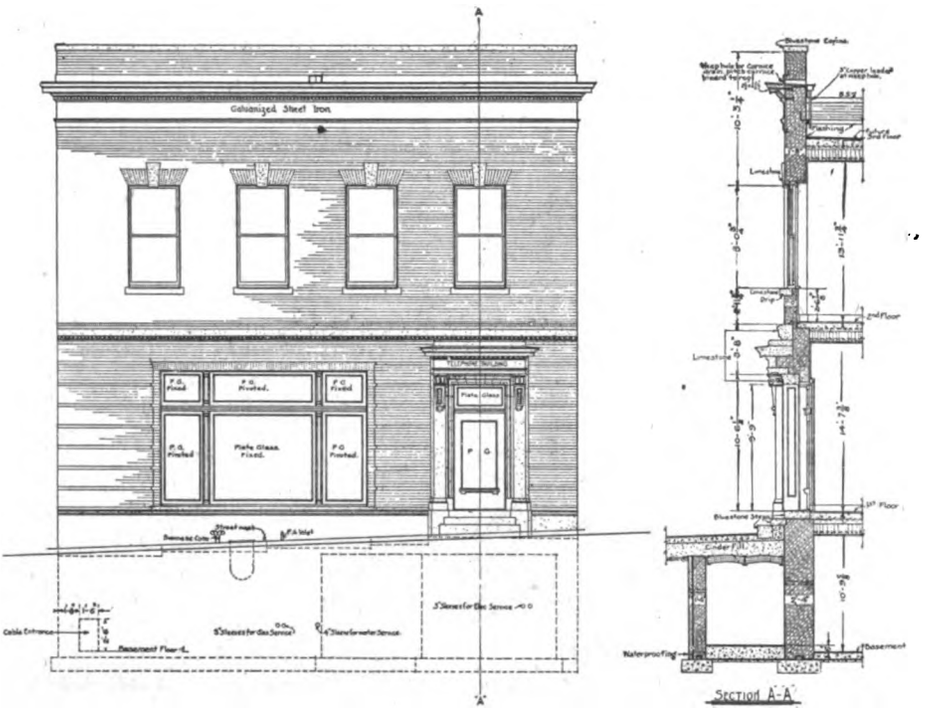
The Commercial office on the first floor will be provided with a show window similar to that in a number of our small offices. All windows except this show window will be of wired glass in hollow metal sash and metal frames, the area of the glass coming well within the requirements of the Underwriters, affording protection from both interior and exterior exposures.

The initial switchboard equipment in this building will provide for 1,100 subscriber lines and 3 trunking positions.

The building is scheduled for completion on or about November 1, 1913, and the new board is scheduled to be cut into service about March, 1914.

Bay Ridge Building

AN extension is being made on the rear of our present Bay Ridge Central Office Building, located at 362 51st Street, Brooklyn, N. Y., under the supervision of and from plans and specifications prepared by the Engineering Department of this Company. The extension will be 51 feet 4 inches in depth, 36 feet 6 inches wide and three stories and basement in height.



The first floor of the present building is occupied by the terminal room, the second floor by the operators' quarters and the third floor by the operating room. With the proposed extension to the building, the first floor will provide for increasing the terminal room and for a new operators' locker room, the second floor for the remainder of the operators' quarters and for additional switchboard sections when required. The third floor will provide for an extension of the present operating room.

This extension to the building was necessary to provide for additional switchboard growth. The present switchboard will accomodate only 4200 working lines. This, it is estimated, will care for Bay Ridge and Sunset (which is served from the Bay Ridge board) until December 1, 1914.

In addition to constructing to the rear of the building, numerous changes will be made in the present building to make the same a thoroughly fireproof structure.

The contract for the construction of the extension and alterations to the present building has been awarded to F. H. Dusinberre, Port Washington, Long Island.

East New York Building

THE P. J. CARLIN Construction Company of New York City are making excellent progress in the construction of an additional story on our present East New York central office building, on the southwest corner of Herkimer and Sackman Streets, Brooklyn, New York.

The original East New York building was a two-story and basement structure, occupied on the first floor by the terminal room and operators' quarters, the second floor being used as an operating room.

When the new third story is completed, space will be provided on this floor for a second operating room and for additional operators' quarters, which will be required in connection with both the present board and the new board.

It was necessary to add to the building so as to provide equipment

Digitized by Google

to meet the telephonic growth of this section, as the present switchboard would not be large enough to supply the service which it is estimated will be required by the first of 1914.

In addition to the third story, numerous interior changes will be made as well as the addition of fire protection. Plans and specification for this work were prepared by the Engineering Department, and the supervision of the work will be under their jurisdiction.

New Cresent Exchange, Buffalo

WITH the big, new Tupper Exchange just completed and placed in operation, another step has been taken in the general scheme of expansion to provide for the future as well as the present telephone service for Buffalo.

Plans are nearly completed for a new Crescent Exchange to take the place of the present Crescent office, located at the corner of Main and Parker Streets.

The growth in what is known to telephone men as the Crescent Area of the city has been so rapid that it is now becoming one of the popular residential districts. In like proportion the demand for telephone service has increased so the present quarters will become inadequate probably by the latter part of 1914.

The New York Telephone Company has purchased property on the east side of Main Street, near Depew Avenue, about two blocks from the present location, and will erect a new building.

The building in itself will cost in the neighborhood of $50,000, and everything that is possible with modern, up-to-the-minute methods will be used to make it as nearly fireproof as possible.

At present, plans provide for a building which will not take up the entire lot, but will allow the installation of a switchboard of a capacity of about 5,000 subscriber lines, or about ten thousand telephones—however, the building will be so constructed that it can be extended to care for twice this number.

In the beginning, the switchboard to be installed will have a capacity of about 2,500 subscriber lines, which will care for about 5,000 telephones and will cost about $90,000. The new switchboard will be of the very latest type, incorporating all of the up-to-the-minute improvements which have become necessary in furnishing complete, satisfactory telephone service.

In connection with the new Exchange, outside construction work of various kinds, made necessary with the installation of the new switchboard, will bring the total cost of the work of installing the new board up to about $150,000. It is expected that work will be started on the new Exchange as early this summer as is practical.

OBVERSE AND REVERSE OF "MEDAL OF PROGRESS" AWARDED THE TELEPHONE COMPANY OF NEW YORK BY AMERICAN INSTITUTE, 1877.

A Medal of Progress

IN 1877 the American Institute awarded The Telephone Co. of New York a bronze "Medal of Progress," and through the courtesy of Miss Cheever, who received it from her brother, Commodore Cheever, we have been permitted to photograph it for the benefit of our readers. The illustrations show both the obverse and reverse sides.

It will be remembered that Charles A. Cheever and Hilborne L. Roosevelt were the first men to venture their time and money in the telephone business in New York. Probably the first telephone line in New York was the one from the A. D. T. office at 704 Broadway to Mr. Roosevelt's organ factory on West 18th Street in 1877, and the second was soon after installed between Commodore Cheever's office in the Tribune Building and the "Law Telegraph" Exchange at 140 Fulton Street.

On August 31 of that year these two men organized The Telephone Company of New York, capital Twenty Thousand Dollars, divided equally between them. The Company lasted only ten months, but it secured the medal from the American Institute.

Mr. Vail came on from Boston and upon the beginning made by The Telephone Co. of New York, firmly established the telephone in the metropolis.

The Best Advertisement

BUSINESS concerns spend large sums for advertising, but when all is said and done, the best advertisement any company can possess is the employee who by painstaking service wins the good will of patrons. We quote the following editorial from the Westfield, N. J., *Leader:*

Our Telephone Service

Of all the Public Service Corporations which do business in Westfield the New York Telephone Co. is the best. Its young lady operators are worthy of congratulation for their ability, and in no other locality can the service be better.

This is a free advertisement for the Telephone Company, and they get it because their employees are trained to the second.

Last week we had occasion to call upon a professional gentleman whose services were needed AT ONCE. He was not at his office. We suggested at least ten places to the young lady night operator, and she may have suggested more. She understood the nature of the hurried call and got to work and used her head. In less than ten minutes she had called up more than ten places, and in twelve minutes had located the gentleman at Flagg's Westfield Theatre and had him on the telephone.

She was courteous; she was eager to please; she offered sensible suggestions, and she was happy to have success.

We venture to suggest that the same attention could not have been given by any other corporation of a public nature. It is pleasant to think of a case like this at a time when we have reason to complain of many other things. We would like to add that we have been informed that when attempts have recently been made to reach the railroad station the telephone girl has done her best to give service.

We hope that this word of thanks may be some little compensation of an extra nature for the hard-working girl at the switchboard.

Digitized by Google

Analyzing a Trouble Complaint

By M. A. Cooke, Wire Chief, Gramercy-Stuyvesant

TROUBLE complaint as we see it in a superficial way is a small slip of paper about 2½ inches wide and 4½ inches long, conveying to us in abbreviated form either the trouble evident on a subscriber's line or his individual complaint reflecting on the character or quality of the service rendered, or both.

The receipt and investigation of a trouble complaint from any source, generally speaking, is a comparatively small matter to the average telephone man because of the fact that trouble seems to be a part of his real existence. We seem to flatter ourselves at times and find contentment in comparative figures and assume for various reasons that because we are a large organization and transact an enormous business, we must necessarily expect trouble, and we invariably get it.

In treating with trouble complaints, however, we should consider that the average business man has neither the time nor desire to complain of things that are entirely satisfactory; that there is a well defined reason for every complaint, and we should therefore treat it seriously and not measure in minutes and seconds the extent of the investigation to be made nor treat it in a perfunctory manner, as we generally find the reason for the complaint if our search has been sufficiently thorough. We should accept a complaint as a friendly criticism of some weakness in the system and profit by it.

A subscriber having experienced trouble either in getting a response from the central office after removing the telephone from the switch-hook or during a conversation, or from other causes, makes a complaint, and by reason of the fact that a complaint has been made, we must investigate it. Let us analyze it.

The subscriber calls the central office and is connected with the desk operator, who receives his complaint and records it on a printed trouble ticket which shows, the date, time received, line number and nature of complaint, and she may ask the testing operator to test the line. The desk operator then calls the trouble operator, who also records on a trouble ticket the same information, assigns a serial number to the ticket and forwards it to the Wire Chief's office by means of a pneumatic tube or other convenient method. Upon receipt of the trouble ticket, the clerk checks the serial number and procures from the card catalogue file the subscriber's card bearing the number reported and enters on the card, the date, time reported and trouble reported, files the trouble ticket and places the card in a receptacle on the test desk. The deskman takes the card and examines the entry of trouble, presses a key which connects him with the test operator's position, orders the line up on a test cord and by manipulating various keys connected with a voltmeter or other apparatus, determines the nature of the trouble on the line. If the trouble is not apparent on this test, the subscriber has to be called and questioned as to the trouble experienced.

We will assume that the line tested "open" on the initial test. The deskman has to determine whether it is "open" in the central office or in the outside plant, and calls for a man to "short-circuit" at the arrester strip the particular pair that takes the line through the cable towards the subscriber. If the test obtained at this point proves that the trouble is not in the central office, the deskman then enters in the "test" column on the card "open cut" and places the card in the box of the troubleman assigned to the district in which the subscriber is located. When the troubleman calls the office on his periodic call, the deskman removes the card from the box and reads the trouble to him, giving him the line number, name, address, pair and subway cable number, address of the terminal, trouble tested and the time, enters the man's name on the card and replaces it in the box. The troubleman makes out a special trouble ticket, entering on it all the information given him by the deskman and proceeds to investigate the trouble. When the trouble has been discovered and cleared, he calls the office and reports to the deskman the nature of the trouble cleared, enters the information on his ticket and turns it in with his report of the day's work. The deskman also enters the information on the card and the time of "O. K." and if the troubleman is not calling from the subscriber's place the subscriber is called by the deskman and advised that service has been re-established on his line.

The card is then placed in the "O. K." file and collected by the clerk whose duty it is to tabulate trouble. He enters the line number on a daily trouble report and charges the trouble against a specified heading, according to the nature of the trouble cleared, computes the time between "time reported" and "time cleared" and charges the elapsed time against the line number. The card is then placed in the inspection file and the entries inspected by the Wire Chief or his assistant and if "O. K." is filed in its respective place in the card catalogue file.

At the close of the day's business the trouble sheet is checked up to show the totals of each kind of trouble cleared and the total time spent on Central Office, Line and Station trouble, and these items are posted in the monthly trouble record book. From the totals in this book a monthly trouble report is compiled showing the totals under the various classifications of each kind of trouble and a further subdivision of:

Total number "Found O. K."
Total number "Test O. K."
Number of Central Office troubles per Line.
Number of Line troubles per Line.
Number of Station troubles per Station.
Number of "Found O. K." per Station.
Number of "Test O. K." per Station.

This report shows also the average time of clearing Central Office, Line and Station trouble and from its totals certain other statistical data is compiled, the actual value of which causes many telephone men to question it. We are frequently asked if they have a true value in view of the fact that the troubles are not analyzed to any extent, but tabulated from the opinions of men as they appear to them or the result of the most logical remedy to apply. It should appear quite clear that the true value of any report, particularly of trouble on telephone equipment, where we have a multiplicity of apparatus susceptible to electrical and mechanical defects, could be arrived at only after a scientific analysis of such trouble as it may be the result of one of two or more causes. Is not the question of diagnosing trouble, or the effect, a most important one, and that result the only one of any value? Are not many of the troubles which we record as having cleared, purely hypothetical, and do not many of them recur? Finally, when the proper remedy has been applied, reports cease.

Digitized by Google

When we consider that the number of trouble complaints in the average central office is between 2,000 and 3,000 per month and that the method of procedure is nearly the same in all cases, it appeals to me that if the process of elimination by proper analysis could be applied, the net gain in results would be enormous, even if we succeeded in eliminating only a small fraction of the total.

A properly analyzed trouble report has an intrinsic value, but it must be the result of analysis.

As previously stated, a trouble complaint in itself is relatively a small factor, but it bears the same relation to a large industrial organization as the microbe does to the human system. They both require a microscopic examination to reveal their true nature.

The telephone business and the trouble element should not be co-related. Our trouble complaints should not increase in the same ratio as we grow, but they seem to do so.

Western Electric

THE *Western Electric News* for May contains an article describing how the Western Electric Company met the rush orders for telephone and telegraph equipment to repair the damage caused by the recent disastrous storms and floods in the Middle West.

The sleet storms in Chicago of February 20 and March 20 occasioned hurried calls for supplies, but they were nothing compared to the call from Omaha on March 24, which was: "Send us at once 8,000 poles, 25,000 cross-arms, 100,000 pins, and 32,000 feet of cable." On that day "the largest single express shipment that ever left the Twin Cities" was sent from Minneapolis to Omaha. It consisted of a special express train carrying 180,000 pounds of telephone equipment.

This shipment was but one of many, and throughout the flooded district calls for supplies drew heavily upon the Western Electric's stocks at Cleveland, Pittsburgh, Indianapolis and Cincinnati. The outlying houses at Boston, New York, Philadelphia, Richmond, Atlanta, Kansas City, St. Louis, Minneapolis and Dallas were notified to be ready with their reserve stock when it was needed.

Despite the difficulties of transportation the equipment was rushed to its destination, and the employees of the Western Electric Company worked day and night under the most adverse conditions in order to fill shipments. Letters of appreciation from telephone officials tell in glowing terms of the service rendered.

Visiting Central Offices

ABOUT the middle of March the Local Managers in the Hudson Division were requested to make efforts to induce the public to visit our Central Offices. It was especially desired that invitations be extended to women's organizations, church guilds and clubs.

This plan has been very successful in Kingston. Beginning on March 26 and concluding April 16, ten receptions were held which were attended by representatives from twenty-two women's church organizations and the Kingston Chapter of the Federation of Women's Clubs. There was a total of 363 visitors.

The visitors usually arrived at about three o'clock in the afternoon, and assembled in the Local Manager's office, from which they were escorted through the building in groups of from 15 to 20. First, they went to the cable vault where the underground system and the entrance of the cables to the building were explained. From there they were shown to the terminal room where complicated apparatus, batteries, test-boards, charging machines, ringing machines, relays and other features of this department were expounded. Next, they visited the operating room and were introduced to the Chief Operator, Traffic Chief and other representatives of the Traffic Department. The switchboard and operating, the duties of the Chief Operator, the Information Operator and other employees were explained, and the visitors were requested to ask questions, which they did freely. They were shown how a toll ticket was timed, how the information operator obtains the information desired, and how toll calls were passed. Particular attention was called to the "busy test" and many were greatly interested in the method by which operators detected the "busy" line.

In the operating room most interesting expressions of appreciation and surprise were heard. Occasionally, the question was asked, "What did you bring us here for?" The reply was, "To let you see what happens after you take the receiver from the hook to pass a telephone call." One lady remarked, "I do not think I shall ever lose my patience with an operator again." Another said, "I wish my husband could come here, it would teach him to have a little patience with the operator." She was requested to ask her husband to come. Often such remarks as these were heard, "My, how quiet the room is" and "How orderly and attentive to their work the employees are."

After the operating room had been inspected, the visitors were conducted to the retiring room where a caterer served refreshments. This little entertainment was a real surprise and was much appreciated. While the visitors were enjoying it a little further talk was made on our methods, our anxiety to please the public, the Company's efforts to do the right thing every time, and how our aim from beginning to end was to satisfy the public and to enlighten them as to the conduct of our business. Again a continual fire of questions were asked and answered.

From the retiring room they were escorted to the Commercial office, where they were shown the operation of the Western Union, and the conveniences of "Telegrams by Telephone." Upon leaving, they were requested to tell their friends what an interesting visit they had had, and many of them promised to send others to see the building.

A number of other offices in the Division are meeting with similar success in this direction.

The Successful Manager

THE word "Manager" as defined by Webster, is, I find, "One who manages." "A person who conducts business with economy and frugality." He must not only do this economically, but must see that what he spends, is for a profitable purpose for his employer.

The most successful Manager is one who can sell the most and get the most service for the expenditure. In the present day competition in the Telephone business is active and requires careful and prudent management to secure the most satisfactory returns.

A little kind act will frequently cause a patron to be your life-long friend, and will result in your securing, not only his friendship but the business he controls.

The small city Manager has the advantage over the larger city Manager because he comes into more personal and daily contact with his customers, he feels their heart throbs, as it were; and can either extend the hand of sym-

Digitized by Google

pathy or if he does not possess a high degree of tact, can drive the business away. The most successful Manager to my mind is he who can and does control his temper and practices daily the three successful virtues, Tact, Courtesy and Co-operation.

The successful Manager must be tactful in selecting his working forces. He must cultivate Courtesy to the public and in order to show results to his employer, must practice and preach Coöperation.

Courtesy is something the business public have a right to demand and expect of you; it pays, not only in the friends it makes you, but as a representative of the Company you represent. It smooths out the annoying little crow's feet and wrinkles of the business world, and keeps you sweet and clean for the daily battle. True Courtesy is no respecter of persons. It remembers that "a man's a man for a' that," and gives the helping hand as readily to the tattered and torn, as to the richest clad.

Complaining customers should be treated courteously and properly looked after. A complaint satisfactorily settled will often cement the bond which exists between the customer and the Manager, and is a point that should be properly looked after. If your customer finds you have pigeon-holed his complaint and you are trying to deceive him, you will lose his confidence, and in the business world that is, in my estimation, a priceless pearl, and should be well guarded.

During the past year it has fallen to my lot to act as a peace promoter in settling some particularly objectionable squabbles, and I have invariably found the cause of these squabbles to be due to a lack of tact on the part of the Company's representatives.

W. J. MADDEN,
Special Agent, Buffalo, N. Y.

SIGN 44' x 46' ON MARKET STREET, NEWARK, BUILDING.

TWO "Universal" signs have been painted on our Washington Street, Newark, building, one on the north side and the other on the south side.

These signs are each forty-four feet wide by forty-six feet high, and are very imposing. There may be other similar signs as large, but we have not heard of them.

Organization Changes

Accounting

C. W. Hazard has been transferred from the Friendship Telephone Company to the New York Telephone Company in charge of special work, reporting directly to the General Auditor.

NEW JERSEY DIVISION

Commercial Department

The Jersey City Local District transferred from the Central to the Northern District. J. G. Orr, Local Agent, Jersey City, will report to M. J. Moloney, District Agent, Northern District.

E. W. Wollmuth appointed Local Agent, Newark.

G. J. Hafstrom appointed Local Agent, Tompkinsville.

J. A. Tracy appointed Chief Clerk, Newark Local Office.

T. I. Gorton appointed Chief Clerk, Jersey City Local Office.

H. B. Fenn, Special Agent, transferred to No. 15 Dey Street. Mr. Fenn will continue to handle the New Jersey Division railroad accounts under the supervision of A. D. Walters, Special Agent in charge of Corporation Accounts.

CENTRAL DIVISION

Traffic Department

Miss Emily Matthews appointed Chief Operator at Skaneateles.

Miss G. L. Sawmiller appointed Chief Operator at Syracuse-Warren, vice Mrs. M. Greenwood, resigned.

Miss N. Westover appointed Manager of School, vice Miss G. Sawmiller, transferred to Warren Central Office.

Miss Kathryn Franz appointed Chief Operator at Utica.

HUDSON DIVISION

Commercial Department

B. B. Lloyd, formerly Local Manager at Amenia, N. Y., has been appointed Resident Agent at that place, reporting to Local Manager, Poughkeepsie, N. Y.

M. J. Eitleman, formerly Chief Clerk to Division Sub-License Manager, and who recently resigned his position with the Company to accept another, has again accepted a position with this Company as Chief Clerk to the Local Manager at Troy.

Digitized by Google

Food Is Composed of Various Substances, Each of Which Has a Functional Value; Their Use in Proportion Is Necessary to Health

Food

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

Meals Should Be Taken Regularly, and Careful Attention Paid to Cooking; Thorough Mastication of Food Is of Primary Importance

Food has been likened to the fuel which supplies the engine with motive power, but it must also replace worn-out tissue and provide for increased growth.

Scientists have been able to determine the composition of the human body and the character of food best fitted for its nourishment, and were it possible to give directly to the various tissues the material most needed for their support, the problem of nutrition would be easily solved. But that which we eat is subjected to the process of digestion and food reaches its destination in a modified and roundabout way; however, the knowledge we now possess enables us to go a long way towards securing the desired results.

Composition of Bones

It is known that the bone is composed of animal and earthly matter, or so-called "bone earth." The animal matter consists chiefly of gelatin, and every household is familiar with the fact that very appetizing and nourishing soups may be made by boiling bones, which simply liberates the gelatin. The latter remains unchanged for a long period, for soup has been made from bones over a thousand years old.

The earthly matter is composed of phosphate of lime, and supplies bone with the necessary hardness. The bones of very young children are less compact and probably contain a relatively larger amount of animal matter than the bones of grown persons; this provides greater elasticity, and were it not for this the many falls and injuries incident to childhood would lead to more frequent fractures and deformities. Sometimes the amount of bone earth in early life is far too small, for in a form of malnutrition affecting children known as "Rickets," the bones, particularly of the legs, become bent and distorted, and lime must be supplied in order that they may regain their normal composition.

Muscular System

The muscular system, unlike bone, must be capable of the freest movement, therefore different food is required to maintain its nutrition; then again the secretions must have plenty of water and certain salts to perform their function properly.

Organic and Inorganic Foods

Food is classed as organic and inorganic; organic substances are divided into those which contain nitrogen and those which do not. The organic nitrogenized substances are known as "proteids," and are by far the most important articles of food, for nitrogen is required in the formation of new and the repair of old tissue and in the proper nourishment of the body, and without it we could live but a short time.

The proteids are well known to us in the forms of meat, the albumen or white of eggs, the caseine of milk, the gelatin of flour, and so on, and are specially needed to supply strength and motion.

The organic non-nitrogenized substances, as the name implies, contain no nitrogen, and are recognized in the forms of fat and sugars, the latter being known as "carbohydrates"; starches are included in this class and during the process of digestion are transformed into sugar. Sugars and fats are heat producers, besides being important agents of nutrition. If they are reduced in amount below a certain point a condition of malnutrition follows and renders the person more susceptible to disease. Fat is found immediately under the skin, as well as in the deeper structure, and being a poor conductor aids in retaining the warmth of the body and protects it against cold. Fat is required over parts exposed to pressure, and aids in maintaining the symmetry of the body.

Organic substances in supplying the various tissues with nourishment lose their identity and leave the body in a changed condition or as waste matter; this is eliminated largely through the intestinal tract and the kidneys.

Inorganic substances consist of water and various salts, which are necessary to maintain properly the functions of the body; they are specially needed in connection with the various secretions, such as the gastric and intestinal juices, but unlike organic substances they are eliminated from the body in the same form in which they enter it.

Values of Various Foods

Having considered in a general way the composition of the body and the material required to nourish it, we are better able to understand the value of various articles of food, particularly under special conditions. For instance, an athlete while in training, does not use fat as a diet, for it would increase his weight and would add but little to his muscular power. Therefore he must eat chiefly of proteids, such as meats, eggs, etc., from which he secures additional strength and proper material to replace worn-out tissue, for there is a pressing need of this during excessive and continued exercise; however, if he were to continue his rigid or special diet too long, there would be a deficiency of fat and sugar, and his general health would be impaired. On the other hand during convalescence from fevers, or where extreme emaciation exists, as in tuberculosis and various other conditions, fatty foods are urgently called for. Aside from the temporary or special instances which have been just related a mixed diet is regarded as essential to continued health and strength, for it contributes to the support of all tissues and functions.

Excessive Eating Is Harmful

There is not the least doubt that those who can obtain all the food they desire eat far too much, for, like drinking and smoking, it is largely a matter of habit, which can and should be curtailed. It is commonly believed that when a large amount of food is taken the portion which is not actually required at the time is stored up for future use and becomes a protection against disease. There is not only no evidence to substantiate such a theory, but there is indisputable proof that when an excess of food is taken it remains undigested, particularly when it consists largely of meats, and fermentive and putrefactive changes occur in the intestinal tract, due to certain forms of germs or bacteria that are always present in this canal. Some of the products of putrefaction which are poisonous are commonly absorbed into the system and are responsible for many unpleasant and sometimes serious conditions; furthermore, an excess of food overworks the organs of digestion, and as a result of this continued strain degenerative changes take place, which later in life frequently lead to fatal results.

The most vigorous specimens of mankind are those who are more or less constantly in the open air and eat the simplest food. The Scotch Highlander, whose endurance is well known and whose nourishment consists largely of oat-meal, is an illustration.

Foods Compared

The table on the following page presents a more condensed and convenient means of ascertaining the relative amounts of proteids, fats and carbo-hydrates in various articles of food.

A few of the more important articles referred to call for additional notice.

Milk

Milk is generally regarded as the most valuable form of nutrition, for it contains practically all of the substance necessary to existence. No other form of food is required in early life and an adult may subsist upon it for a while, although its composition, which consists of about eighty-seven per cent. of water, is not sufficient to maintain continuously a grown person in good health. Many cannot digest cow's milk, for the latter is quickly curdled on reaching the stomach and may cause indigestion. In human milk this takes place more slowly, and it is therefore better adapted for the infant.

Cow's milk is easily and quickly digested by the calf, for the stomach of the latter is better prepared to break up the curd promptly. In the far East the objection to animal milk along these lines is met by fermenting it and dissolving the curd before it is taken into the stomach, thus relieving the latter organ of this part of digestion. Kumyss, which is largely used in this country, is an example of this. Various other forms of fermented milk are now also extensively employed here as food. These constitute a most valuable and easily digested nourishment; besides, the lactic acid which is formed during fermentation prevents to a great extent the putrefactive changes in the intestinal canal already referred to. Milk thus treated is in no way medicated and may be taken in about the same amount as the untreated milk.

It is needless in this article to discuss at any length the importance of a pure milk supply, for this subject is being constantly dealt with in detail by the public. It is well known that the milk transmits the

Digitized by Google

germs of infectious diseases, for instance, typhoid fever, therefore each family, particularly where there are children should pay careful attention to the source of their supply. In large cities this is looked after by the Municipal authorities; however, when we consider that in New York City there are about 2,000,000 quarts used daily and that it comes from many States, and through many different channels, there is much that the individual can do in selecting a reputable and careful vendor of milk.

Meat

The meat eaten by human beings is usually obtained from animals which are vegetarians and are not obliged to do physical work, such as cattle and sheep. Animals which are used for labor, the horse for instance, are given proteids, usually in the form of oats, to increase their muscular powers and efficiency, therefore their meat is coarser and not as tender or as palatable as that generally used for food.

The use of impure meat is frequently followed by unpleasant or dangerous results, but this relates chiefly to hog meat and occasionally veal. While it may be due to chemical changes under the well known name of "ptomaine poisoning," it is usually caused by the presence of certain forms of bacteria. Parasites, such as tapeworms and trichina, are often taken into the alimentary tract, usually with ham, and poisoning from this source is of common occurrence in Germany where this form of food is eaten only partly cooked. These unpleasant results may, as a rule, be prevented by having the meat subjected to a sufficiently high degree of heat to kill the bacteria and parasites or may be effected by cooking it long and well, which will secure a temperature from 160 to 200° F. necessary for this purpose in the centre of the meat. While this part retains its redness the required degree of temperature has not been reached.

Beef and mutton are so seldom affected in this way that it should not deter those who are fond of rare meat of this kind from continuing its use, provided care is observed in its purchase and to be reasonably satisfied that it has not been unduly exposed or improperly cared for.

Poultry

Poultry is more easily digested and less stimulating than meat, and is therefore more acceptable to convalescents and weak digestions. Game, such as quail and partridge, is tender and easily digested, although keeping it for days or weeks to develop certain flavors cannot be recommended.

Fish

While fish is more digestible and less stimulating, and therefore less supporting than meat, it must be eaten fresh, for it rapidly decomposes and becomes absolutely unfit for use. Oysters are nutritious and easily digested, but they must also be eaten fresh. While they are sometimes polluted by sewerage, it is probable that the danger in this direction is somewhat exaggerated, although care should be taken to ascertain from whence they come, for in certain sections their beds are quite free from contamination.

Lobsters, crabs and mussels are very palatable, but they cannot be depended upon for nourishment and are fit to eat only when fresh, otherwise serious results may follow. This occurs so often in connection with mussels that it is much safer to exclude them as an article of diet.

*COMPOSITION OF DIFFERENT ARTICLES OF DIET.

	In 100 Parts				
	Water	Proteids	Fats	Carbohydrates	Salts
Arrowroot	15.40	0.80	.....	83.50	0.30
Bacon (Letheby)	15.00	9.00	73.00	.....	3.00
Barley meal (de Chaumont)	11.30	12.70	2.00	71.00	3.00
Barley pearl (Church)	14.70	7.40	1.10	75.80	1.00
Beef, best quality (König)	72.00	21.00	6.00	.....	1.00
Beef, as supplied to army	75.00	15.00	8.40	.....	1.60
Beef, salted	49.10	29.60	0.20	.....	21.10
Beef, corned or Chicago (Parkes)	52.20	23.30	14.00	.....	4.00
Beetroot (König)	87.00	1.50	.....	10.50	1.00
Biscuits	8.00	15.60	1.30	73.40	1.70
Bread (Rubner)	39.50	8.00	1.00	50.00	1.50
Bread, average wheaten	40.00	8.00	1.50	49.20	1.30
Butter, English fresh (Bell)	12.00	2.00	85.00	.....	1.00
Butter, very best (Bell)	8.00	1.00	90.00	.....	1.00
Butter, salt (Bell)	17.00	.....	80.00	.....	3.00
Butter, highly salted (Bell)	17.00	1.00	74.00	.....	8.00
Cabbage (König)	89.00	2.00	2.00	5.50	1.50
Cabbage, Brussels sprouts	85.50	5.00	0.50	7.80	1.20
Carrots (König)	87.80	1.00	0.20	10.00	1.00
Cheese, Dutch (Bell)	41.00	28.00	23.00	1.00	7.00
Cheese, single Gloster	36.00	31.00	28.50	.....	4.50
Cheese, poor quality (Bell)	48.00	32.00	9.00	7.00	4.00
Cream (Letheby)	66.00	2.70	26.70	2.80	1.80
Eel (König)	57.50	12.50	28.50	.....	1.50
Eggs	73.50	13.50	11.60	.....	1.40
Fish, salmon (König)	76.00	15.00	7.00	.....	2.00
Fish, sole (König)	86.00	12.00	0.50	.....	1.50
Fish, herrings fresh (König)	80.00	10.00	8.00	.....	2.00
Flour, wheaten fine	16.50	13.00	1.50	68.30	0.70
Flour, wheaten average	15.00	11.00	2.00	71.20	0.80
Goose (König)	38.00	16.00	45.50	.....	0.50
Horse-flesh (König)	74.30	21.70	2.60	.....	1.00
Lentils	12.50	24.80	1.80	58.40	2.50
Macaroni (König)	13.10	9.00	0.30	76.80	0.80
Maize (Pozziali)	13.50	10.00	6.70	64.50	1.40
Margarine	12.03	0.75	82.00	.....	5.22
Milk, average cow's	86.90	4.70	3.50	4.20	0.70
Milk, Devon preserved (Blyth)	90.35	4.20	1.15	3.50	0.70
Milk, average town	86.00	5.00	4.00	4.30	0.70
Milk, condensed English (Bell)	27.00	12.00	8.40	50.80	2.00
Milk, condensed Swiss, sweetened	25.60	12.30	11.00	48.70	2.40
Milk, condensed Swiss, unsweetened	61.85	11.35	11.25	13.35	2.00
Mutton, ordinary	76.00	18.00	5.00	.....	1.00
Oat meal	15.00	13.00	6.00	63.00	3.00
Parsnips (Parkes)	82.50	1.30	0.70	14.50	1.00
Peas	15.60	22.00	2.00	58.00	2.40
Pork (König)	47.50	16.00	34.00	.....	2.50
Potatoes	74.00	2.00	0.20	21.84	1.00
Rice	10.00	5.00	0.10	84.40	0.50
Turnips (König)	91.00	1.00	0.20	6.80	1.00
Veal, lean (König)	78.00	19.00	1.50	.....	1.50

* Notter and Firth.

Eggs and Butter

It is hardly necessary to refer to the importance of eggs as an article of food, for their value in this direction is well known. The white of eggs contains the proteids and the yolk is composed principally of fat. While eggs cannot be adulterated, persons are often deceived as to their freshness, for they may be kept indefinitely by preventing air from passing through the shell.

Butter is superior to all other forms of fat for the nourishment of the body, and far too little is eaten even when expense is not a factor to be considered.

Cereals

The importance of the cereals as food may in a measure be indicated by their universal use throughout the world. Wheat and oats are the most valuable articles of this class. The various forms in which wheat may be used for food are too well known to call for special comment. Formerly oat-meal was carelessly and improperly prepared for general use, and for this reason was frequently irritating to the intestinal tract; however, its very great value as an article of diet has more recently led to special care in its preparation and it may now be obtained in a very palatable and digestible form. However, it must not be forgotten that oat-meal should always be well cooked. It is necessary only to examine the above table to recognize the richness of oat-meal in proteids and also in other substances required for a mixed diet, and we may turn to the horse for evidence as to its value in furnishing power and endurance.

While probably one-third of the population of the world subsist chiefly on rice, it does not provide the important elements of nourishment contained in wheat and oats.

Peas and beans are rich in fat and proteids, and a good dish of soup made from either of these articles makes a very excellent meal.

Potatoes

Although deficient in proteids and fats, potatoes form one of our most valuable articles of diet, for they contain a large amount of starchy food which is required in the nourishment of the body; besides, the juice of the potato is distinctly acid and is of special value, for, with other vegetables and fruits, they supply a material which the system needs and must have. Without them, certain conditions of malnutrition may occur, notably "scurvy."

A Serviceable Diet

The following will illustrate a serviceable diet for a man in good health taking active exercise in the open air and whose food is restricted to bread, butter and fresh meat, with water and coffee to drink: Meat, 16 ounces; bread, 19 ounces; butter or other fat, 3-5 ounces; water, 54 ounces.

Selection and Cooking of Food

Practice has led us to eat three times a day, but if a person is equally well nourished and more comfortable by eating twice daily there is no objection to following this course, nor is it injurious to eat at night if one chooses to do so, provided proper care is observed in the selection of food, for it is the abuse rather than the use of food we suffer from.

The value of food depends largely upon the manner in which it is cooked, for the latter process properly carried out renders both meat and vegetables far more palatable and digestible, for in the raw state they are tough and stringy. While various means of cooking are employed, there is one method which, so far as possible, should be avoided, and that is frying, for in this way heat is applied through the medium of fat, which penetrates the food and renders it far less digestible than other forms of cooking.

Regularity of Meals

Meals should be taken regularly and with sufficient interval between them to give rest to the digestive apparatus; this should involve at least four or five hours.

Food should be eaten slowly and thoroughly masticated, for this really constitutes the first stage of digestion. Than this, nothing can better indicate the importance of caring for the teeth, for later in life impaired digestion is largely due to their absence or worthless condition. It is also necessary that the saliva be incorporated with the food, for it is largely through its mixture with this secretion that starch is changed into sugar, the form in which it enters the system.

Those who will follow these simple rules in the selection of plain, wholesome and properly cooked food and are careful not to overeat will be repaid for their effort in the way of better health, better digestion and relief from the many discomforts which so commonly follow over-indulgence or the use of improper food.

Digitized by Google

Pupin Coils

Suggested by A. S. Rossborough, Local Agent, Nyack

MR. A. S. ROSSBOROUGH, Local Agent, Nyack, writes: "I would suggest the caption 'Pupin Coils' for the short items department of *The* TELEPHONE REVIEW. As the Pupin Coil reinforces the telephone current and enables the telephone company to make use of smaller wires than would otherwise be required for long distance calls, thus effecting a considerable saving in copper, so the short, snappy stories on various subjects reinforce the enthusiasm of all employees who read them and enable all of us to do better work."

That is a nice little compliment to the items which employees all over the territory have been contributing to these columns, and we hope it will encourage others to send in similar notes.

Repair Shop Outing

The Outing of the Repair Shop Force to take place on Saturday, June 7th, at Glen Island, will no doubt be well attended. There will be a Barbecue, a fine shore dinner with a Cabaret, refreshments, games, prize bowling and dancing.

The boat will leave foot of East 22d Street at 8.30 a. m., and returning, leaves Glen Island at 6.30 p. m.

Tickets, which are $2.25 each, may be procured from Mr. W. I. Webber, Chairman, Committee of Arrangements, Repair Shop, 350 West 17th Street, New York City, or at the boat.

An Example to Follow

I have been impressed with the value of the story which appears on page 94 in *The* TELEPHONE REVIEW, April, 1913, entitled "The Latest in Shopping by Telephone." I have instructed some of my salesmen to interview some of our larger retail grocery houses for the purpose of acquainting them with the value of the telephone as a means of increasing their business, using this article in *The* TELEPHONE REVIEW as an evidence of what is being accomplished by others.—E. A. OBORNE, Local Agent, Flatbush.

New Traffic Districts in Westchester

On May 1, 1913, two new central office districts were added to the Westchester Division, viz., Stony Point, in Rockland County, and Yorktown, in Westchester County. The former has about 81 lines and 104 stations, and the latter about 47 lines and 136 stations. Each of these offices is operated on a semi-agency basis.

The district served by Stony Point has been served heretofore by the Haverstraw switchboard. The Yorktown district was formerly operated by the Yorktown Telephone Company, which was acquired recently by the Friendship Telephone Company, who continued to operate it until midnight, April 30, 1913.—JAS. W. BELLINGER, Chief Clerk, Traffic, Westchester.

Another New Central Office in North Jersey

Telephone users in Butler, Morris County, in the Paterson Local District, a manufacturing town of 2,500 population, 38 miles from New York, and consequently outside of the commuting zone, are now served from a new agency operated magneto selective central office, located on the main street in the center of the town.

The existing lines, extending from Pompton Lakes Central Office, comprising a total of eleven, carrying 54 stations, were connected into the new Butler board on February 1. As a result of the new central office and adequate outside plant, 29 lines and 22 stations were added immediately. —M. J. Moloney, District Agent, Paterson.

Telephone Calls on "Tick"

A recent inspection trip took me to a rural general store, and while there I noticed the frequent use made of the telephone by customers.

This led to a conversation with the proprietor regarding the installation of a public telephone, but he finally decided that he would not have one because the present method was so much more convenient.

Instead of their having to "drop the money in the slot," his customers use the telephone whenever necessary and he charges the calls to their accounts —which goes to show that telephone calls now-a-days are placed on the same basis as buying goods.—"SALAMANCA."

A Promising "Prospect"

The "lonely watcher" in the lighthouse is no longer lonely. The telephone, as usual, shatters the romance that is hoary with tradition while it is creating a new and wonderful literature of its own. The New York *Press* tells of a busy business man who tried six times in two days to talk to a certain light keeper, but each time found his telephone busy. "Judging by my experience," he writes, "there is greater cause for apprehension over the man's difficulty in finding time to attend to his social duties and keep his lights in order at the same time." W. A. Dalton, Local Agent, Riverside, suggests that here is a promising "prospect" for additional equipment.

Rochester Traffic and Plant Co-operation

Following the account, published in the March issue of *The* TELEPHONE REVIEW, of the dinner given in Rochester on February 22, when over 300 prospects were promised by Plant and Traffic representatives, the following figures show how well these departments have so far made good their promises.

The number of prospects turned in by the Plant and Traffic Departments, Rochester District, for March, 1913, was 79, of these 63 resulted in contracts, 14 are pending and 2 were declined.

These figures show that the Plant and Traffic representatives will make good their promise of over 300 contracts. It is work of this kind that arouses the spirit that is seen everywhere in the Western Division.

Methuselah's Telephone Number

During the session of the Methodist Conference, recently held in this place, there was related the following anecdote, which I thought worthy of repetition in *The* TELEPHONE REVIEW—what do you think?

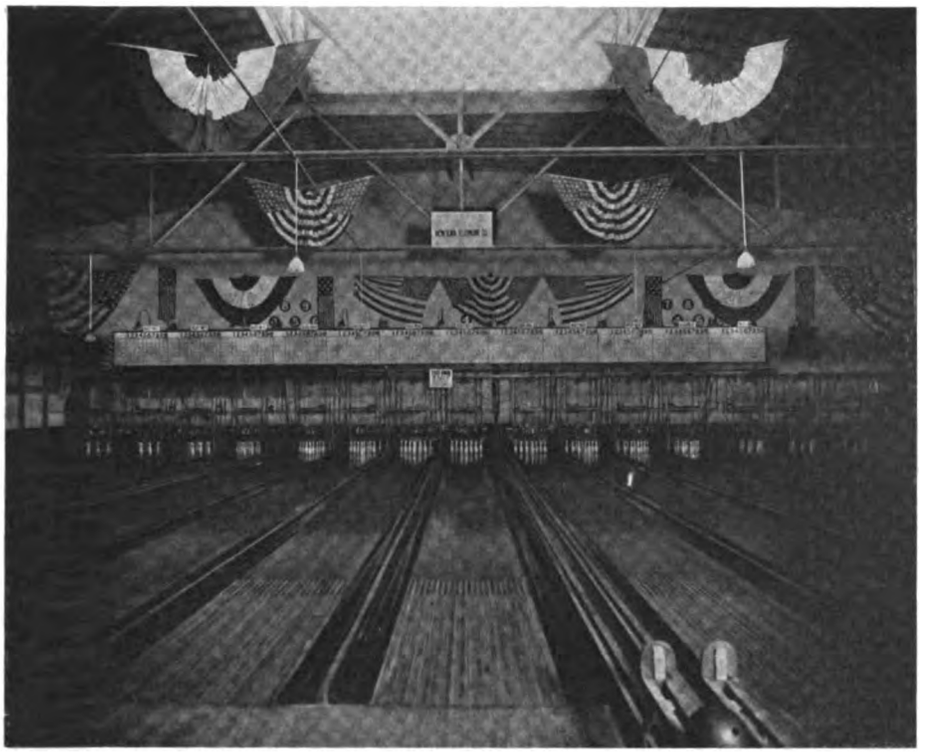
A teacher in a certain Sunday School asked a little fellow in the class, how old Methuselah was, and he replied that he did not know. "Why," she said, "I wrote it on a card and gave it to you last Sunday for you to learn." "Oh!" said the little fellow, "the number 969?. Why, I thought that was his telephone number."—W. C. SHERMAN, Salesman, Saratoga Springs.

The Right Spirit Again

"This article is my first, but not last."

It is this spirit which is most gratifying to us to note in the contribu-

Digitized by Google



WHERE THE ROCHESTER BOWLING TOURNAMENT WAS HELD.

tions which we receive from our fellow employees. An Orange Installer made the above remark in sending us a little item. We hope there are many more who feel just the same about writing us. Another illustration of the "right spirit" we mentioned last month.

Get a Gas Range and Telephone

It is interesting to know that the people who have lived through the age when the ingenuity of man did not afford them all the conveniences of modern inventions, do appreciate their real value, as in the case of an elderly lady who made application for telephone service recently. The contract was drawn up, and the conditions explained to her. After she had read it carefully, she remarked: "Well, there are two things a person has to have now days, a Gas Range and a Telephone, so I might as well sign it." —S. T. LEADLEY, Local Agent, Rochester.

Bowling Scores by Telephone

The accompanying illustration shows the interior of the Genesee Amusement Company's Bowling Hall, Rochester, N. Y., where the annual tournament of the National Bowling Association was held, April 3 to April 22.

The New York Telephone Company was represented by a five-man team composed of Messrs. Carritt, Pickard, Roberts, Martens and Banks, and also by a two-man team composed of Messrs. Pickard and Carritt.

The five-man team scores were (1) 775, (2) 819, (3) 894.

Pickard and Carritt in the individual event both drew prizes—Pickard's score being 610 and Carritt's 588, which compared very favorably with any other of the two-man teams.

For the use of the scorers and board-markers, we installed six private lines (Interior System "D") equipped with six breast transmitters and head-receivers, and six desk stands terminating in No. 99 Jacks, the battery being fed from the Main Central Office, using No. 8-B retardation coils. The use of these lines enabled the official scorers for each pair of alleys, who were on a raised platform back of the foul line, to give the number of pins knocked down to the board marker, who posted the scores on a large score board at the rear of the hall for the benefit of the spectators. By this method, scores were posted on the board almost as soon as the pins were knocked into the pit.

The management is very much pleased with the equipment, which gave entire satisfaction.—B. F. GIBSON, Chief Clerk, Rochester Commercial.

Practising What We Preach

A rural line subscriber in sending in a belated remittance, acknowledges receipt of a "Three Months at a Glance" calendar, on which is printed the motto, "The Voice With the Smile Wins," and writes: "The calendar is gratefully received, and you may tell the clerk who talked with me to-day that she has the upper motto well learned. It is a rift in the clouds that hang over us to hear such a pleasant voice." —C. A. WOOLSEY, Local Agent, Montclair.

A Wonderful Convenience

April 28, 1913.

Mr. F. H. Rose,
New York Telephone Company,
Livonia, N. Y.

Dear Sir:—

Having occasion to send telegrams frequently, especially night letters from my home on Conesus Lake, the fact came to me very forcibly to-day; what a wonderful convenience, not only to me but to the public in general your arrangement with the Western Union is.

I do not think the public in general half appreciate the modern progressive spirit of public service corporations, and I trust that my small words of commendation may help in keeping this spirit alive. I beg to remain,

Very respectfully yours,
(Signed) H. S. WOODWORTH.

"Play Ball"

With the advent of spring, King Baseball emerges from his winter quarters, and the old familiar cry of "Play Ball" fills the air.

The New York Telephone Athletic Club has organized a baseball league of eight teams, with a schedule running from May 3 to October 4. Games will be played at the new St. George Cricket Grounds, Hoboken, and the field at Dyckeman and Academy Streets, New York. A most interesting season is anticipated, and members of the club as well as all employees of the Company are urged to come out and root for their favorites.

The results of the games on May 3 were, Engineers 15, Plant Accounting 3; Plant Construction 15, Brooklyn Plant 6; N. Y. Inspectors 25, N. Y. Night Force 2.

The schedule follows:

	Engineers	Plant Acctg.	Bklyn. Plant	Plant Const.	N. Y. Inspect.	N. Y. Night Force	Bldgs. & Supp.	N. Y. Install.
Engineers		May 3	May 10	May 17	May 24	May 31	June 7	June 14
Plant Acct'g	June 21		May 17	May 10	May 31	May 24	June 14	June 7
B'klyn Plant	June 28	Sept. 6		May 3	June 7	June 14	May 24	May 31
Plant Const.	Sept. 6	June 28	June 21		June 14	June 7	May 31	May 24
N. Y. Inspectors	Sept. 13	Sept. 20	Sept. 27	Oct. 4		May 3	May 10	May 17
N. Y. Night Force	Sept. 20	Sept. 13	Oct. 4	Sept. 27	June 21		May 17	May 10
Bldgs. & Supplies	Sept. 27	Oct. 4	Sept. 13	Sept. 20	June 28	Sept. 6		May 3
N. Y. Installers	Oct. 4	Sept. 27	Sept. 20	Sept. 13	Sept. 6	June 28	June 21	

Digitized by Google

Easily Found

Recently an operator at the "Market" official board, Newark, N. J., received an incoming call for an employee of the Telephone Company by his surname only, the calling party not knowing the initials of the employee, nor the department with which he was connected. In the official board directory there are six persons listed under this surname. As the subscriber seemed unable to give any information which would reveal the particular one of the six, the operator referred the case to the supervisor, who succeeded in obtaining enough of a personal description to amount to an identification, and with this she was able to discover the right party.

Nemesis of Evil Doers

A telephone receiver blown from its hook by a charge of nitroglycerine set by safe-blowers in the First National Bank in Medaryville, Indiana, was the means of preventing the theft of many thousands of dollars.

The large doors of a vault in the bank had been torn away, allowing access to $75,000 in currency, when a telephone operator answered a signal. No voice came over the wire, but she heard a second blast, and gave the alarm.

The telephone is indeed the Nemesis of the evil doer.

Telephone Service on "Half Time"

We hear much these days concerning the high cost of living or the cost of high living, whichever way it is most convenient to put it. Nearly every necessity of life, except the telephone, has increased in price it seems 100% within the last few years. This fact was strongly emphasized when a subscriber wrote to the Nyack local office, requesting that his telephone be put on "half time." The letter was interpreted to mean a temporary disconnection at one-half rate, and an order to that effect was promptly issued.—A. S. Rossborough, Local Agent, Nyack.

Wanted a "Noodle Shop"

Instead of asking, "What Central, please?" as they do to-day, telephone operators formerly used the expression, "What office, please?" when a subscriber called for a number without giving the central office name.

On one occasion an operator was somewhat taken aback to receive the reply, "Central, it iss not an office, it iss a noodle shop."—(Miss) J. M. DeCamp, Operator, Market (Newark, N. J.).

Rochester Notes

"All the comforts of home, and more, will be enjoyed by the wholesalers who participate in the excursion that is to be taken under the direction of the Chamber of Commerce Wholesale Trade Committee, June 3 to 5," says the Rochester *Democrat and Chronicle*.

The New York Telephone Company has arranged to render service on the special train that will carry the travelers, so that at each stop they will be able to get in touch with their offices, business associates or anyone with whom they wish to communicate.

The trip will last three days and cover the towns of Perry, Silver Springs, Corning, Bath and Mt. Morris with many stops in between.

The new Hotel Hayward, Rochester, has signed a contract for a Private Branch Exchange, consisting of a one-position, 320-line lamp board and 95 stations. This adds one more hotel to the long list of those Up-State with Bell Telephone service in every room.

From April 1 to 26, the net gain in telephone stations in Rochester City was 320, 108 more than the highest net gain for any previous month. According to present indications, it will be necessary to revise the revised estimate of 1800 stations. The original estimate called for 1400.

W. J. O'Hea,
District Manager.

Telephone Habit in Wall Street

Enter the office of any unlisted security broker of prominence in Wall Street and one is immediately struck by the number of telephones on his desk, in some cases between ten and fifteen. One broker says: "I feel nervous unless the telephone rings at least once every three minutes while I am in my office, and I am positively wretched on dull days when I don't hear the familiar bell." There are brokers who, during busy days, are never away from the telephone, and many a busy trader does more calling up and answering calls than the operators in an active station.

Everything is done over the telephone in Wall Street, messengers being rarely used. Theatre tickets, dinner dates, appointments with doctors, lawyers, friends, business associates and enemies are negotiated over the telephone. It is no longer necessary to meet a man to have a wordy argument or arrange a most important deal, booths are constructed in practically every office with double doors, behind which many a big deal is consummated. *Wall St. Journal.*

Kingsburg, N. J.

On May 1, a new agency operated exchange was opened at Kingsburg, N. J., thus supplying a long felt want to residents of that community.

Busy Summer Season Predicted on New Jersey Shore

According to present indications a record-breaking summer season will fall to the lot of the New Jersey shore. As early as Washington's Birthday many of the Asbury Park hotels were filled. Because of the special session of Congress large numbers of summer residents are arriving instead of taking spring trips abroad.

Because of this activity, a strenuous campaign for new telephone business is now going on, and it is expected that the high water mark of 1912 will be greatly surpassed.

Easily Found

A dealer in automobiles recently called "Central" and stated that he wished to talk with a lady in Buffalo who had a Buick runabout for sale. He did not know her name or address except that she lived on a certain avenue.

The operator called several people on that avenue and, finally, succeeded in locating a person who knew the lady and supplied her name and address.—(Miss) E. I. Edwards, C. O., Ellicottville, N. Y.

The Detective's Ally

The use of the telephone on the stage has been developed to such an extent that we find it unusual to attend a successful play which does not depend largely upon this modest member of the cast, whose name does not appear on the program. In fact, many plots could not be carried out without the use of this instrument.

A good example of the telephone and its value to the playwright is afforded in "The Argyle Case," now running at the Criterion Theatre, New York. Robert Hilliard as Asche Kayton, a detective "a la Burns," gives a vivid portrayal of a method of William J. Burns in solving a baffling mystery.

During the entire action of the second and fourth acts Kayton is seated at his desk in New York devoting a large part of his time to directing his men and following up clues over the telephone. Both local and long distance calls are used continuously, and little by little the detective weaves his net around the guilty parties.

Scarcely have the criminals been apprehended when the telephone bell rings once again. A person in Chicago summons Kayton to a new case, and the audience is left to imagine another hunt via the telephone for more guilty individuals.

Digitized by Google

The Voice of Reconstruction

When a flood sweeps over a vast area, desolating the cities and towns which lie in its course, the appeal for assistance gets a unanimous response from the whole country.

With all commercial and social order wiped out, an afflicted community is unable to do for itself. It must draw upon the resources of the nation of which it is a part.

In such an emergency, the telephone gives its greatest service when it carries the voice of distress to the outside world, and the voice of the outside world back to those suffering.

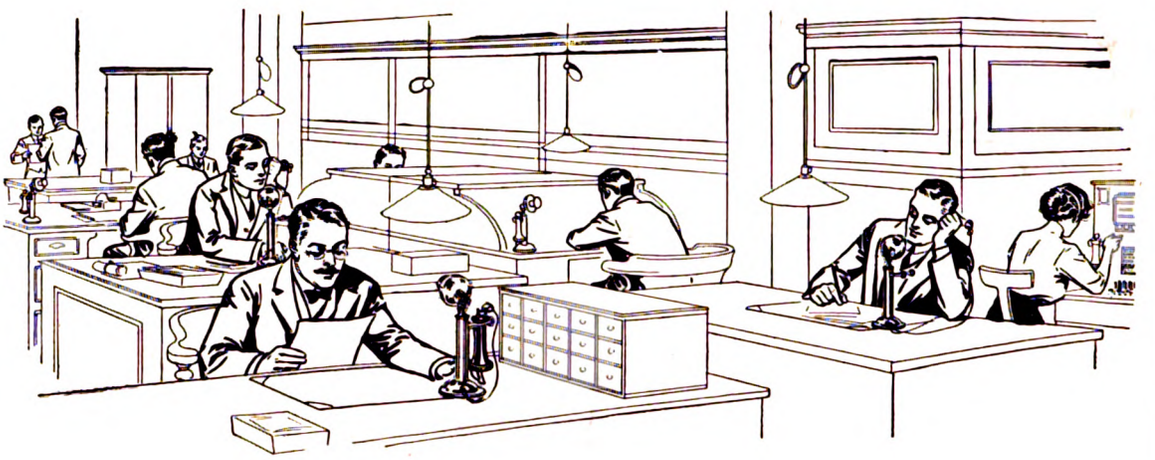
At the most critical time, the nearest telephone connected and working in the Bell System affords instant communication with distant places.

And always the Bell System, with its extensive resources and reserve means, is able to restore its service promptly, and in facilitating the work of rebuilding, performs one of its highest civic functions.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

Every Bell Telephone is the Center of the System

Digitized by Google



The Telephone Builds Business

"The first requisite for doing business is to be able to get at a customer. The more customers you can readily get at, the more business you can do."

G. W. PERKINS, in "The Evening Journal"

As it is "the mind that does business" and "the telephone gives the mind wings," you can do more business by telephone than in any other way, because you can reach more customers. And you reach them in a personal, voice-to-voice manner, that builds business.

Do You Make Full Use of the Telephone in Your Business?

AMERICAN TELEPHONE & TELEGRAPH CO. LOCAL LONG DISTANCE TELEPHONE BELL SYSTEM AND ASSOCIATED COMPANIES

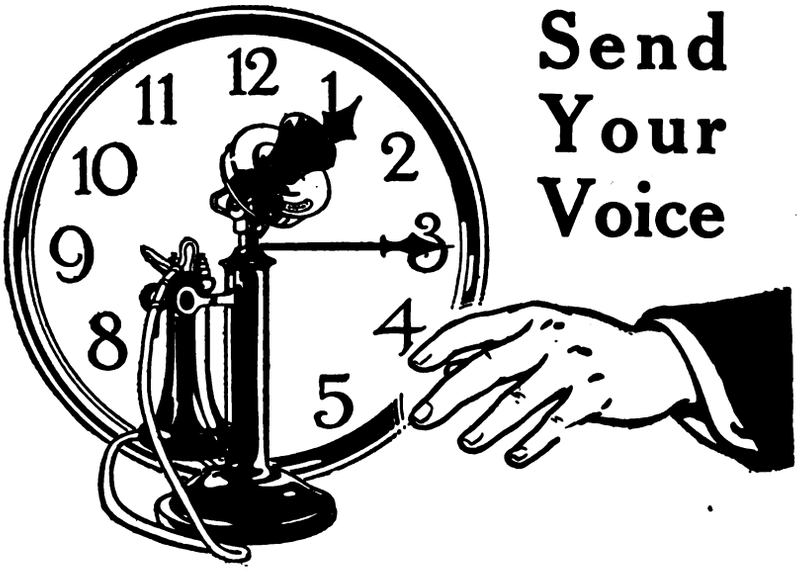
NEW YORK TELEPHONE COMPANY

Digitized by Google

THE TELEPHONE REVIEW

Vol. 4 No. 6 June 1913

Digitized by Google



Send Your Voice

YOU may have an appointment which you cannot keep—you may wish to make one—you may have an order to place—or in an emergency you may wish to reach your doctor quickly—in these cases **send your voice!**

By using the telephone you will save time and avoid delays. You will reach almost instantly anyone you care to in a direct and personal way.

UNNECESSARY TRIPS—WAITS—DELAYS

Loss of Time—Energy and Money—all may be saved if you use your telephone.

Why not send YOUR voice by Telephone?

NEW YORK TELEPHONE CO.

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV — NEW YORK, JUNE, 1913. — NUMBER 6

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the

NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treas.
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, Attorney
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor.

VOL. IV. JUNE, 1913. No. 6

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.

Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

The Magic of the Telephone

Just how modern is the essential and ubiquitous telephone—now connecting a half-million houses and offices in New York City—there is a casual line in "Pinafore" which serves to indicate. When the kindly chorus is condoling with Ralph Rackstraw on his separation from his Josephine, it chants these words to picture the terror of his lot:

No telephone connects with his dungeon cell.

The line falls flat to-day. But "Pinafore" was produced for the first time in 1878, and in 1876 the Bell patents for the first practical telephone were issued. Thus, when the words were written, they related to a new and startling invention that was the talk of the day, and the Gilbertian line was really a gay, topical jest.

It is a safe guess, however, that very few of the people who laughed at "Pinafore" in the 70's foresaw what the telephone would really prove to be. The years of the telephone are few. But already it has transformed business method and social intercourse. The railroads, the fast trains, the telegraph, wireless, the automobile all helped to make the nineteenth century a century of acceleration.

The telephone worked more real magic than all the rest together. The discovery of astral bodies would hardly have done more to multiply human effectiveness and enable us to snap our fingers at space.—*New York Tribune* (Editorial), May 27, 1913.

The Quality of Courtesy

Benefits Both the Transmitter and the Receiver

COMING from "an eye witness to the little incident," as the writer states, we print the following description of a simple act of courtesy:

April 22, 1913.

Mr. Theo. N. Vail, President,
Western Union Telegraph Company,
New York.

Dear Sir:—

While engaged in writing a telegraph message at the counter of your office at ———— one day last week, I was an eye witness to a little incident which prompts me to send you these few lines, as an appreciation of the class of employees which you employ.

A small, sweet faced, timid appearing elderly woman approached the counter and was promptly met by a pleasant appearing young man who asked if there was anything he could do for her. She informed him that she had arrived in that city on her way to visit some friends residing in a small village nearby, and found owing to a strike on the interurban trolley lines, that she was unable to reach her destination, and wished to telephone them to come for her.

The young man consulted the telephone directory, and informed her that the party had no telephone, but that he knew of a store in the village through whom she might send a message to her friends.

The woman then said she was unaccustomed to using a telephone, and asked if he would not deliver the message for her. He said he would gladly do so, and invited her inside the office and giving her a chair, asked her to rest while he telephoned the message.

I became an interested spectator and heard him say the roads were impassible, but she could reach her destination by traveling in a round-about way by steam road, and after consulting a time card, and giving her instructions, he picked up his coat and hat and assisted the woman to the railroad station, several blocks distant.

I have traveled a long time, but have never yet found a corporation employee who showed such unfailing gentlemanly treatment towards an entire stranger.

I trust you will forgive me for giving you such a detailed report of the affair, and I also wish to compliment yourself and your Company for the possession of such a courteous, tactful employee, and I feel that such a young man will some day receive his just reward for that one kindly act.

There was nothing in the office routine which called for as much attention as the lady received at the hands of the employee. From the nature and quality of his act, it is probable that he did not even know what the routine says on the subject of courtesy, and that his behavior was the result of instinctive and inbred refinement.

That the incident appeared to the observer as so unusual is more to be commented upon than what the young man did. Why should the act be considered unusual, and the writer of the foregoing letter say that he has "never yet found a corporation employee who showed such unfailing gentlemanly treatment towards an entire stranger?"

The courtly manners which graced the gentlemen of the old school, and the ladies, too, for that matter, have almost entirely disappeared. These manners were appropriate in their day when there was time for the observance of ceremony in business as well as social affairs. The more strenuous existence we lead has merely simplified the form without any diminution of the real, genuine courtesy which needs no form or ceremony for its true expression.

There is no reason to believe that true courtesy exists no longer because the veneer has been removed, or that there are not still Lord Chesterfields, Sir Walter Raleighs, Crichtons and Bayards without their velvets and plumes and rapiers.

In every walk of life the "seeing eye" may behold kindly and generous deeds and thoughtful consideration that lose nothing of their beauty for being modest and unaffected.

It is gratifying, nevertheless, to receive such a letter as the one we have quoted, and the type of employee which is so highly commended, is the one which the Company is anxious shall distinguish its service throughout all departments.

This letter resulted in an inquiry by the higher officials regarding the employee concerned. It was found that he entered the Western Union service ten or eleven years ago, and within the past year was transferred to the New York Telephone Company's pay

Digitized by Google

roll. He is said to be "a fine fellow, of pleasing personality, thoroughly commercial, and always working in the interests of our patrons." His advance has been steady, and only a short while ago, before the incident related occurred, he was promoted to a more responsible position. It was only to be expected that such a type of man would be successful and some time attract unusual notice.

Courtesy is largely a habit of mind, just as grouchiness, ambition, laziness, industry, carelessness, efficiency and inefficiency are.

Most of us, if not all of us, were engaged by the Company because of certain qualities and abilities we possessed that it was thought would make the Company stronger and better. The disappointment which the Company feels when we fail to live up to expectations is as great as the pleasure which comes when we do just a little better than is expected of us.

"Every Local Agent is the Centre of his District."

A NEWSPAPER asked one of our Company's local agents for several photographs, including one of himself, to illustrate an article it was about to publish regarding the telephone development in his territory.

The other photographs were promptly sent, but he declined to send one of himself, and also requested that his name and any personal reference to him be omitted from the article.

This is an illustration of the same diffidence which so often prevents many of the Company's representatives from accepting invitations to deliver lectures and otherwise assuming the position of dignity and outward responsibility which is as much their duty as the responsibility for the proper performance of the routine matters connected with their office.

There is too often an idea that nothing can be done without special approval, unless it is set down in some routine or covered by some previous ruling. Such an idea entirely eliminates all scope for brains and ability higher than is possessed by an automaton, and is repugnant to the whole theory of business organization.

The words which we have quoted above are taken from an address by Mr. McCulloh. We repeat them: "Every Local Agent is the Centre of His District."

That can mean but one thing, and that is, that in his territory each local agent or manager is to all intents and purposes the Company itself. Any question of personal modesty is as much out of place in side-stepping opportunities to entertain and instruct the public collectively, such as through the columns of a newspaper or before an audience, as it would be to hide from the public and refuse interviews in his private office.

To a large extent this same responsibility rests upon all representatives, but since it is the especial duty of the local agents and managers to officiate as the spokesmen for the Company, they should take every opportunity to promote its interests by every means possible.

The Company provides them with conveniently located and attractive offices, features their names in all advertisements in their territory, and looks to them in a large measure to create favorable public sentiment and extend the business for it.

In an editorial discussing an entirely different subject, the New York *Times* embodies a few gems of wisdom that illustrate our point very forcefully:

> The experience and the training gained in business pursuits or in the practice of a profession are invaluable. They give a man insight and foresight, caution, prudence, the capacity to distinguish between the truth and error, or at least that is their tendency. A man who has borne his part in the business world's struggle for existence, or in matching his abilities against others of equal or greater talent in a profession, is less apt to be reckless and venturesome than one who has not passed those tests. A man who has accumulated a fortune small or large must continually have exercised his judgment; he knows that mistakes react upon those who make them; that blunders bring their penalty; that industry, clear thinking, notably, the ability to think clear through a subject until the other side is brought into view, are apt to bring their reward. Strength and self-reliance, confidence in self are won in the strifes that bring fortune.

Such a man rises by his own might, from whatever position he may start.

Personal popularity becomes, therefore, one of the greatest elements of success, and no amount of grim and dogged plugging away at details will compensate for the lack of it.

It would be amusing, if it were not so disappointing, to hear men sometimes brag about how close their nose is kept to the grindstone, as if it were something commendable.

The sooner this condition is remedied and such a man gets on top of his job, the better it will be for him and the Company.

Prize Contest

THE first prize of $10 in the Advertising Contest which closed May 15 was awarded to W. E. Johnson, Commercial Department, Madison Square Office, New York City, for his suggestion as follows:

> A Straight Line Is the Shortest Distance Between Two Points. The telephone path leads straight to its destination and is the shortest distance between you and those to whom you desire to speak. A letter, or any other means of communication, involves both circumlocution and delay. After all the time consumed in dictating, writing, mailing and delivering a letter, you cannot tell whether or not it actually reaches the person intended. A telephone always does. The time of the telephone message is computed in minutes and seconds, instead of weeks and days.

The second prize of $5 was awarded to Fred. Dykeman, Supervisor, Plant Accounting Department, 15 Dey St., New York City, for his suggestion:

> The Tie That Binds. Illustration of a business man at his desk, talking over the telephone to his little child at home, with reading matter pointing out the advantages of a telephone in the home in enabling you to keep in touch with your family, and also the additional convenience and protection which the family enjoys.

The third prize of $3 was awarded to H. C. Follett, Local Manager, Le Roy, N. Y. His suggestion was:

> Illustration of the interior of a grocery store, showing dollars with wings flying out of the door. You are losing money every time you lose a call when your line is busy. Your business will increase with the adequacy of your telephone facilities. A few lost orders would pay the increased expense.

The award of Honorable Mention was made to Miss L. E. Waldo, Commercial Department, Batavia, N. Y., for her suggestion:

> Illustration showing a long distance telephone line, with Mercury, his occupation gone, resting idly at the foot of a telephone pole. Three verses describe his passing, the last reading:
>
> "Mercury, Messenger of the Gods,
> Sighs and sinks to needed rest.
> Telephones will do his work,
> North and south and east and west."

In addition to the first prize, Mr. Johnson also won Honorable Mention for the following suggestion:

> Something More Than a Telephone. There is something more than a telephone behind a contract for telephone service; something more than the mere furnishing of instruments for communication with the outside world. Courtesy, consideration and a service unequaled in efficiency are at the command of your voice at any time of day or night. There is a feeling of security that accompanies a telephone and a knowledge that no matter what happens, there is always some one within reach of your voice.

It will be remembered that Mr. Johnson was the winner of the first prize last month, and that he also won Honorable Mention in that competition. In recognition of his valuable suggestions and his marked interest in these Advertising Contests, Mr. Johnson was offered a transfer from the Commercial Department to the Advertising Department, and has been placed in the Copy Division.

Digitized by Google

We were very much disappointed to find that the suggestions sent in for the contest closing May 15 numbered just exactly one-third of the total that were received up to April 15. As we go to press, the number for the competition closing June 15 already slightly exceeds what were received this last month, but is nowhere near what it should be.

It is not necessary to be a trained advertising writer to be able to make a good suggestion; the Advertising Department has the trained writers who will put the idea into practical shape, if you will only send it along, however crude it may be.

This effort will not only help the Advertising Department, but help you, and thus help the Company. Possibly your suggestion might also help the public, by inducing more of them to become telephone subscribers, or increase their present use.

Write to us Direct

WE are often surprised to find that even yet there are employees of the company who do not fully understand that contributions for *The* TELEPHONE REVIEW are expected to be sent direct to the editor, and that it is not necessary to send them through their immediate superior or division headquarters. Of course, any one desiring to submit a contribution to some one else for criticism, may select his immediate superior as well as any other employee of the company, but there is no other reason why it should be done. Contributions desired to be confidential will be so regarded by the editor, if requested.

There are no special correspondents for our magazine, although it has often been suggested that we should adopt this method to obtain articles.

Why should we limit the number when every employee has the right to be a correspondent? Certainly 25,000, if we should ever be fortunate enough to have all employees become contributors, would give a wider variety of material than a few dozen.

Make your personality known by sending in an article or an item.

Results of Co-operation in the Western Division

WHEN the forty-four men of the Equipment Department of the Plant in the Rochester District held their dinner on February 22, and spontaneously pledged as a token of their co-operation that within the year they would turn over to the Commercial Department more than 300 prospects, as announced in the March issue of this magazine, their enthusiasm rapidly spread throughout the Western Division.

The round-up began immediately, March resulting in 79 prospects, from which 63 contracts were obtained. April broke all records in the Rochester District, however, for the Plant turned in 109 prospects and the Traffic 10, and the Commecial secured 97 of them, or 81%.

As an expression of appreciation, the District Manager at Rochester writes:

"I cannot help but believe that the "splendid station gain in this Distict "is made possible only by the hearty "co-operation of the other depart-"ments. The net gain for April in "Rochester City was 128 stations in "excess of the biggest month we ever "had, which was in February, when "212 stations were obtained, and the "Station Connected Report for April "showed by far the largest number of "stations ever connected in this Dis-"trict."

The Buffalo and Jamestown Districts are also hitting the pace. During April in the Buffalo District 33 prospects were turned in by the Plant from which 17 contracts were secured, and 15 by the Traffic from which 13 contracts were secured; in the Jamestown District during the same month 4 prospects reported by the Plant resulted in three contracts.

The publication of these figures should increase the rivalry among the departments in the three districts of the Western Division and stir the activities of all other employees throughout the territory of this Company.

Following is a list of the Plant and Traffic people who did such splendid work in the Rochester District during April:

Name	*Department*	*Location*	*No. of Prosps.*	*Contracts Secured*
F. W. Murphy	P	Canandaigua	3	2
P. B. VanDoren	P	Naples	3	1
C. M. Federkile	T	Naples	3	0
Mrs. Cleveland	T	Naples	1	0
C. S. Chase	P	Brockport	4	3
A. J. Hunter	P	Warsaw	3	1
G. E. Wilson	P	Warsaw	1	0
B. Stevens	P	Fairport	3	3
C. E. Waddell	P	Fairport	1	1
J. Brooks	P	Honeoye Falls	2	2
J. Brooks	P	Lima	1	1
Grace Johnson	T	Springwater	1	1
C. G. McMahon	P	Livonia	2	2
C. Chase	P	Brockport	1	1
R. Karges	P	Scottsville	2	2
J. Hackett	T	Caledonia	1	1
W. J. Finn	P	Albion	2	2
E. A. Stetson	P	Albion	3	3
L. Smith	P	Albion	3	1
R. F. Corey	P	Holley	6	5
G. F. Arnold	P	Holley	3	3
Harvey Loke	P	Waterport	5	5
Elmer Berean	P	Kendall	8	8
J. Leahy	P	Mt. Morris	12	10
Mr. Dawson	P	Rochester	2	1
B. Swartz	P	Rochester	2	2
F. A. Martin	P	Rochester	1	0
Mr. Hallock	P	Rochester	1	0
W. H. Henderschott	P	Rochester	4	3
A. E. Koine	P	Rochester	3	1
J. Gillott	P	Rochester	1	1
G. Helling	P	Rochester	1	1
F. Riley	P	Rochester	1	1
J. Smith	P	Rochester	4	4
Mr. Bruce	P	Rochester	1	1
A. B. Childs	P	Rochester	1	2
A. Guinan	P	Rochester	1	1
Mas. Lyon	P	Rochester	1	1
R. Kent	P	Rochester	1	1
Mr. Heughes	P	Rochester	2	2
E. Gossen	P	Rochester	1	0
Geo. Estes	P	Rochester	4	4
H. Norman	P	Rochester	1	1
Mr. Nobles	P	Rochester	1	1
J. Weiss	P	Rochester	1	1
Wm. Sullivan	P	Rochester	2	2
Mr. Kelly	P	Rochester	2	2
G. Ellis	P	Rochester	2	2
H. W. Benedict	T	Rochester	1	1
Miss Begy	T	Rochester	1	1
Mr. Schroll	T	Rochester	1	0
Miss Ringwood	T	Rochester	1	1
			119	97

Digitized by Google

Plaza-Lenox Exchange Districts

By John Buehl, Counter Agent, Commercial Department

Ernest E. Sievers, Wire Chief **Arthur F. Loomis, Traffic Manager**

THE Plaza and Lenox Exchange Districts which comprise that part of New York City bounded by 49th Street, Sixth Avenue and Central Park, 103rd Street and East River include what is undoubtedly the wealthiest population of any telephone exchange district in the world. It has such subscribers as the Astors, Vanderbilts, Goulds, Gerrys, Rockefellers, Andrew Carnegie, Henry Clay Frick, Mrs. C. P. Huntington, the Whitneys, Thomas F. Ryan, Jacob H. Schiff, and others of no less prominence in the social and financial world. The aggregated wealth of the Plaza and Lenox subscribers is over a billion and a half dollars.

Mansions, Hotels and Clubs

Within this area are some of the most handsomely appointed mansions in America. An example is the house at Fifth Avenue and 64th Street, formerly the residence of George A. Crocker, a member of the wealthy Crocker family of California, which was recently purchased by James B. Haggin for $960,000 and remodeled at a cost of about $300,000.

In these districts are also found the finest hotels, among them the Plaza, St. Regis, Netherlands, Savoy, Gotham and Buckingham. There are many exclusive clubs such as the Metropolitan, Riding, University, Union, Criterion, New York Athletic, Arion, and National Democratic.

Museum of Art and Egyptian Obelisk

The Metropolitan Museum of Art, opened in 1880, at 81st Street and Fifth Avenue, was erected at a total cost of $20,000,000 and occupies an area of eighteen and one-half acres. Here are found a part of the famous art collections of the late John Pierpont Morgan, having an assessed valuation of upwards of $50,000,000. Just opposite the museum, on the eastern drive of Central Park, is the Egyptian Obelisk, a relic which antedates the birth of Christ many centuries and was presented by the Khedive of Egypt, Ismail Pasha, in 1877. The expense of its removal and erection was $100,000.

Rockefeller Institute

Another prominent institution is the Rockefeller Institute for Medical Research at 68th Street and Avenue A, which is supported by John D. Rockefeller and has done much towards solving the difficult problems which confront the medical profession.

Famous Art Galleries

Thomas F. Ryan, the capitalist, whose residence is at 858 Fifth Ave., has recently purchased the famous Yerkes Art Gallery adjoining his property and is having the building razed and the ground transformed into an Italian garden. He is also building an art gallery on 67th Street, east of Fifth Avenue, forming an "L" extension to his residence and immediately adjoining that of George J. Gould, which will exceed in cost and size any privately owned art gallery in New York, with the exception of the one owned by the late J. P. Morgan at Madison Avenue and 36th Street. The last named is also famous owing to the fact that during the panic of 1907 Mr. Morgan and his associates held an all-night conference there with prominent members of the banking world and stemmed the tide which would have meant financial ruin to many firms and corporations.

The Park House

The Park House in East River Park at the foot of East 89th Street is the same building occupied in 1805 as the residence of Archibald Gracie, who was referred to as "the Merchant Prince."

Old Highways

In the very early Yorkville days communications were received via the stage coach over the old Boston Turnpike. The old road extended irregularly up Third Avenue and over near Fourth Avenue, through to Harlem. Several old lanes extended from this road, prominent among which were the Rhinelander and Hell Gate. Hell Gate Lane led from the Boston Post Road between 84th and 85th Streets to Second Avenue, to 87th Street, to the foot of East 86th Street at the East River.

Telephone Growth on Upper West Side

On Park Avenue, with the elimination of the old nuisance "noise and smoke" of steam engines, the property has increased in value and many large apartments are under course of construction. As the tremendous telephone growth experienced on the upper west side of Manhattan was due in a large measure to a number of stations placed in apartment houses, it is believed that the growth in this section also will continue along that line.

Uptown Movement of Business

As an illustration of the steady advance uptown of business, the Whit-

PLAZA AND LENOX CONTRACT AND COMMERCIAL OFFICE, 9 E. 59TH ST., MANHATTAN.

Digitized by Google

HOME OF ANDREW CARNEGIE, 5th AVE. AND 91ST ST., SURROUNDED BY ITALIAN GARDENS AND CONSIDERED ONE OF THE HANDSOMEST RESIDENCES IN AMERICA.

HOME OF GEORGE J. GOULD, 857 5TH AVE., CORNER 67TH STREET.

THE VANDERBILT MANSION, 5TH AVE. AND 58TH STREET.

RESIDENCE OF THE LATE JOHN JACOB ASTOR, 5TH AVE. AND 65TH STREET.

RESIDENCE OF EX-SENATOR CLARK OF MONTANA, 5TH AVE. AND 77TH STREET.

THOMAS FORTUNE RYAN'S RESIDENCE, 858 5TH AVE.

COMMODORE ELBRIDGE T. GERRY'S RESIDENCE, 5TH AVE. AND 61ST STREET.

Digitized by Google

PLAZA SUPERVISING FORCE.

Left of right: Top row—Misses Kathryn L. Gilday, day supervisor; Catherine V. McCabe, day supervisor; Alizabeth A. Ennis, day senior; Margaret G. Muller, day supervisor; Lillian M. O'Brien, day supervisor; Margaret A. Dwyer, day supervisor; Josephin F. Hughes, evening supervisor.

Middle row—Misses Elizabeth S. Thorp, day supervisor; Elizabeth S. Mann, day assistant chief operator; Rosella A. Corrigan, chief operator; Anna Copeland, evening chief operator; Margaret F. Lamonea, evening supervisor; Lillian Krien, evening supervisor.

Bottom row—Misses May A. Martin, evening supervisor; Irene Haggenmiller, evening supervisor; Leontine Verrault, night supervisor.

ney and Morse residences on the southwest corner of Fifth Avenue and 57th Street have recently been razed, and in a few months office buildings will stand on their sites.

Further evidence of this movement is given by the fact that within the last twelve months the number of lines in the Plaza exchange district has increased considerably, and it is safe to predict that it will soon contain more business houses than residences.

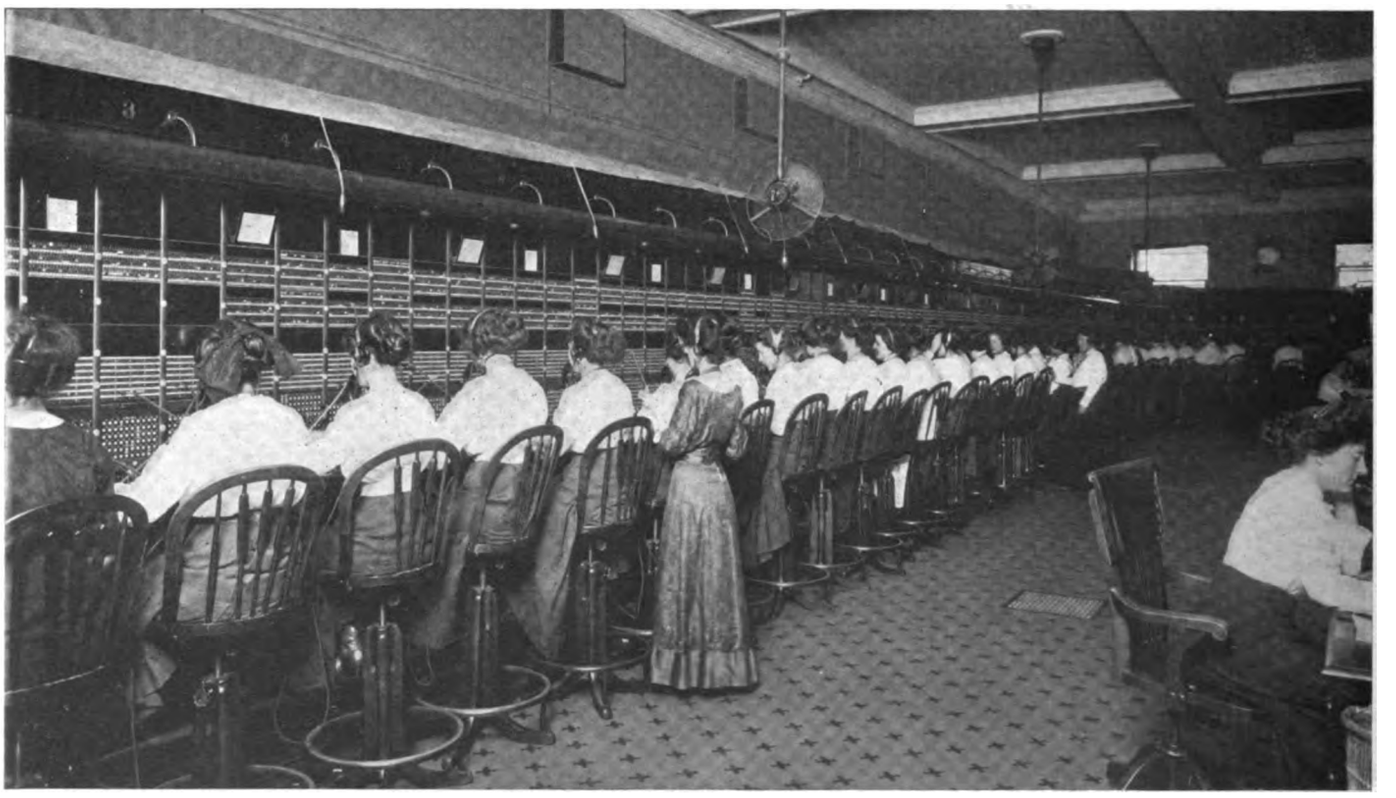
The class of trade which is so rapidly invading these districts consists mostly of milliners, art dealers, interior decorators and book dealers.

Value and Varied Uses of Telephone Service in These Districts

The value of telephone service is nowhere better illustrated than in these districts, and the uses to which it is put are many and varied. The transacting of telephone matters with subscribers must be handled in the shortest possible space of time. The reason is, as they term it, "I do not want to be bothered with so small a matter," and as a rule the business is carried on with secretaries. When it is remembered that nearly all preparations for social events are made by telephone, the rendering of the service is anything but a small matter.

Elaborate Telephone Equipment

The significance which many of our wealthy subscribers attach to the use of the telephone is illustrated by the fact that in the homes of Thomas F. Ryan, the financier and railway magnate, Joseph W. Hoadley, president of the International Power Co., and Judge Elbert H. Gary, Chairman of the Board of Directors of the United



PLAZA CENTRAL OFFICE, MANHATTAN.

Digitized by Google

States Steel Corporation, switchboards have been installed with operators constantly on duty during the day. In Judge Gary's residence the forty-line switchboard is of special wood harmonizing with the color of the furnishings of the room in which it is installed. The finish of the bell boxes in the ladies' room and the men's room is of white enamel, in the library oak, and in the guests' and billiard rooms mahogany.

Requests for gold finished instruments and desk-stand cords and other equipment equally expensive are not infrequent. George J. Gould has gold finished desk stand sets and Murry Guggenheim a gold finished desk-stand cord.

Planning Ahead

Particular attention is given to telephone equipment when building plans are drawn, contracts for service being signed at this time in order to facilitate installation. To equip residences such as are found in this section of the city with telephone service after the building has been constructed would cause a great deal of unnecessary delay and expense, both to the subscriber and to the telephone company, on account of the costly furnishings and material used.

Looking Backward

Now that we have seen just what the Plaza and Lenox Districts are today, it is interesting to look back a few years and consider the great telephone development which has taken place in this area.

LENOX SUPERVISING FORCE.

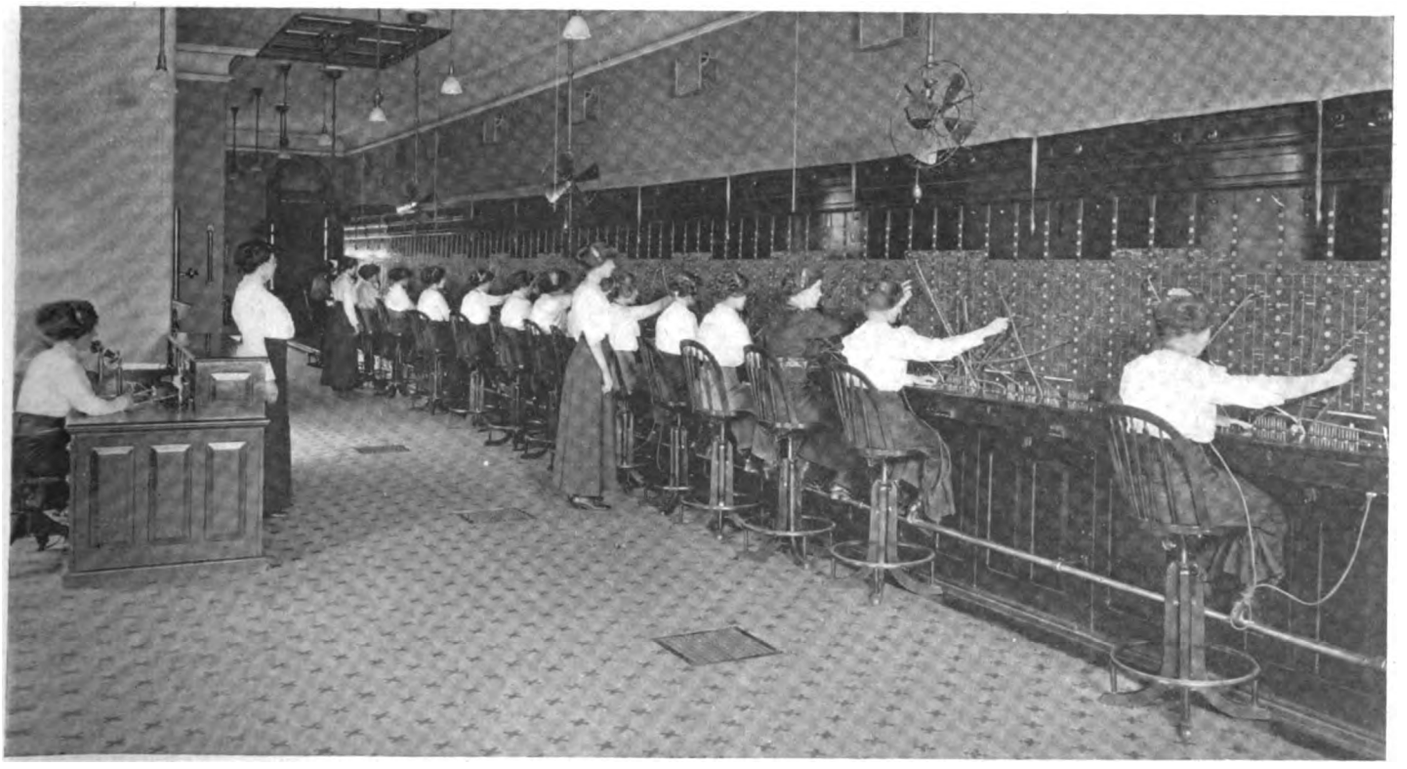
Left to right: Top row—Misses Eleanor Shea, evening supervisor; Loretta Duffy, supervisor; Martha Schwenker, evening chief operator; Julia Rayens, chief operator; Sadie G. Smythe, day assistant chief operator; Mary Golden, night chief operator.

Middle row—Misses Gertrude Pfrangle, day senior operator; Lillian Morris, day supervisor; Mary J. McCallan, day supervisor; Alice Pfrangle, day senior operator; Anna Curtis, day observer.

Bottom row—Misses Katherine Rooney, evening observer; Mary A. Davin, evening supervisor; Helen Eilenberg, evening supervisor; Katherine Turtle, evening supervisor.

79th Street Exchange District Established in 1891

The original telephone subscribers in the old Yorkville Village were



LENOX CENTRAL OFFICE, MANHATTAN.

Digitized by Google

served from the Harlem and 38th Street switchboards. On July 1, 1891, a new exchange district, designated 79th Street, was formed, the boundaries of which were 59th Street, Fifth Avenue, 110th Street and East River. The other central offices in operation in Manhattan at this time were Cortlandt, Spring, 18th Street, 38th Street and Harlem.

The new central office was located on the fourth floor of an apartment building at the southwest corner of Third Avenue and 79th Street, from which service was furnished to 320 subscribers. The switchboard was of the magneto type and equipped with 500 subscriber lines and 62 trunk lines with an ultimate capacity of 1,100 subscriber lines. On the opening day, 2,164 outgoing calls were completed.

The office force was under the supervision of Mr. E. Corrigan, now General Superintendent of Traffic of the Chesapeake and Potomac Telephone Co., and consisted of fourteen day and two night operators. The lower floors of the building were rented as living apartments, and one of the duties of the Manager, who also acted as Wire Chief, was to collect the rents from the other tenants in the building.

The outside plant consisted of nearly all aerial lines, interior block wiring being practically unknown.

Second 79th Street Central Office Opened in 1899

That the increase in subscriber lines was not very rapid at first is shown by the fact that no additions were made until 1895, and then only 60 lines were added. However, the telephone was now becoming more popular, and more additions had to be made until an equipment of 1,400 subscriber lines and 300 trunk lines was installed.

Owing to the large increase in the number of subscribers in the district it was soon found necessary to provide a new building and new equipment.

On October 21, 1899, a new 79th Street Central Office of 2,500 subscriber lines, 461 trunk lines and two-party ringing was opened, being among the first common battery offices. Two additions were necessary until in 1902 an ultimate equipment of 4,200 subscriber lines was reached.

The northern boundary of the district was changed in 1902 from 110th Street to 103rd Street, all lines north of 103rd Street being transferred to the Harlem Central Office, and in 1903 the southern boundary was changed from 59th Street to 70th Street, the new Plaza Central Office (which we will describe later) caring for the territory south of 70th Street.

Third and Present 79th Street Office Opened in 1906

In October, 1906, the third and present 79th Street office was opened in new quarters at 173 E. 79th Street, and a new switchboard of the standard partial multiple answering jack type was cut into service. This board was equipped with 6,800 subscriber lines and 1,700 trunk lines, and had 41 "A" and 24 "B" positions. At this time the jack per station system of handling party line traffic was adopted and the "B" board provided with keyless trunk equipment.

An addition of 1,200 subscriber lines and 120 trunk lines was made during the summer of 1911, the subscribers' board being so rewired that a subscriber's line lamp and answering jack would appear in three places, thereby allowing any one of three operators to answer the call, instead of only one as was previously the case. A further addition of 2,500 lines is scheduled for the near future.

THE PLAZA HOTEL.

While this new office was being installed, it was found necessary to work several hundred 79th Street lines on the Plaza switchboard as the old office was working to its utmost capacity.

"Why Lenox?"

With the May, 1909, issue of the telephone directory, the exchange designation of 79th Street subscribers was changed to Lenox, which was, finally, selected after a careful study had been made of many other names such as Yorkville, Blackwells, East Park, etc. That the designation is appropriate may be seen upon noting the following historical facts, although there are many who ask "Why Lenox?"

Close to a century ago, in the southern section of the isolated village of Yorkville, a tract of land just west of the Boston Post Road (now Third Avenue) extending from 68th Street to 74th Street and as far west as Park Avenue, was purchased by Robert Lenox, a native of Scotland who came to this country as a midshipman in 1779, for a sum said to be something less than $7,000. After his return to England, Lenox resigned from the navy and came back to New York where he married and became a large investor in land. In 1829, when he made his will, he left "My farm at the 5-mile stone" to his son James for life and further provided that at James' death this farm should pass to his heirs. The will also states that "My motive for so leaving the property is the firm persuasion that it may at no distant day be the site of a village." This estate was referred to at that time as the well kept farm at the five-mile stone, and this stone stands today at the corner of Third Avenue and 77th Street and bears the inscription, "5 M. from City Hall."

The Presbyterian Hospital on 70th Street was in later years founded by James Lenox who gave the site for this beautiful edifice, with ample grounds valued at $250,000, and $250,000 toward its erection. The Lenox Library, a massive and unique structure, noted for its most extraordinary collection of printed books and manuscripts was also the gift of James Lenox. Highly educated and cultured, with discriminating judgment, he spent a long life in collecting the rarest of books, paintings and sculptures.

Plaza Central Office Opened in 1903

The Plaza Central Office at 110 E. 58th Street was opened on April 4, 1903, with 5,600 subscriber lines and 1,550 trunk lines, four-party ringing, and 34 "A" and 21 "B" positions, to care for the excessive increase of subscribers in the old 79th Street and 38th Street offices, covering a territory from 49th Street to 70th Street, 6th Avenue to East River.

Growth of Plaza Exchange

The four-party line ringing existed for about two years when the office was changed to two-party line, only to be changed again to a keyless ringing office in 1907. Party line stations were equipped with a jack per station. During the summer of 1908, 1,400 additional subscriber lines were equipped

Digitized by Google

and the subscribers' switchboard was rewired with three line lamps and answering jacks per subscriber line.

Another addition of 1,000 subscriber lines was installed during the latter part of 1911, so the office now has an equipment of 8,000 subscriber lines and 2,286 trunk lines.

During the ten years of Plaza's existence the number of lines in service has doubled and the number of stations trebled. In the near future new equipment will be installed which will give the exchange 83 subscriber operators' positions and 35 "B" positions with a total capacity of 10,200 subscriber lines.

"Plaza"

The man who has a fair knowledge of New York immediately associates the telephone number with a prefix of Plaza as the telephone number of a subscriber located not very far distant from the Sherman Monument, the Scholars' Gate entrance to Central Park and the Plaza Hotel.

Plant Improvements

While these changes were going on with the Central Office switchboards, the outside plant by no means remained at a standstill, and aerial cables began to disappear to make room for interior block wiring. This has reduced the amount of line trouble considerably, and such a thing as having 350 line troubles during a sleet storm, as was the case in Lenox, during the storm in the latter part of February, 1902, is impossible. Lenox District has had no aerial cables since 1912, and Plaza has only one roof terminal still in service.

An interesting outside circuit which has remained unchanged during these years is a magneto loop of twelve stations, extending through Central Park to various shops and buildings from the switchboard at the old Arsenal, now used as the offices of the Commissioner of Parks. This is an aerial loop attached to walls and trees, and considering the temptation offered to boys playing in the park to swing on this wire in certain places, very little trouble is experienced.

Fire Department Telephone Equipment

The Fire Department on E. 67th Street has a combination magneto and common battery switchboard of three positions. From this board extend 31 outside extension lines with several stations bridged to each line from the numerous engine houses throughout the Borough of Manhattan. The lines in close proximity to headquarters are common battery, while the longer lines are magneto with condensers bridged in the bell circuit in order to insure supervision at the switchboard.

Aerial Cables

Aerial cables now run along the entire length of Blackwell's Island, taking the place of what were a few years ago all pole lines. One submarine cable and one cable crossing the Queensboro Bridge to the Island connect the five switchboards in the various Public Institutions to switchboards on this side of the river.

Lexington Avenue Subway

The building of the Lexington Avenue Subway, which will afford easy transportation to and from Yorkville, has placed many of the subway cables in danger of being damaged at any moment and causes the Wire Chief's forces to be on the alert for any cable troubles at all times.

Traffic Curves

It is interesting to note the traffic curves representing originating calls handled during the various hours of the day in these two Central Offices. First, it is observed that the character of each curve varies little, if any, from day to day. The maximum morning point on each curve is between nine and ten, and the maximum afternoon point 60 per cent. of the morning one. At Lenox the latter point is between one and two o'clock, while on the Plaza curve it is between two and three. Both curves show an evening maximum point between seven and eight which on the Lenox curve is 50 per cent., and on the Plaza curve but 35 per cent. of the morning maximum. At Lenox a total of 55, 40 and 34 and at Plaza 75, 50 and 34 "A" and "B" positions are operated during the morning, afternoon and evening busy hours respectively.

The average length of conversation held by both Lenox and Plaza subscribers is well within the five minute period. Flurries of traffic are experienced a few minutes before 8:00 A. M. and again before 9:00 A. M. The average number of registered calls per hour is about 1.03 at Lenox and 1.75 at Plaza. During the summer months the traffic load at Lenox falls to 50 per cent. of winter traffic; at Plaza it is about 40 per cent. Early in September the loads begin to increase and continue to do so until the maximum load of the winter season is reached.

Those offices with which the greatest traffic is handled are, of course, immediate neighbors, viz., Murray Hill, Bryant, Greeley, Columbus, Riverside, Schuyler, Morningside and Harlem.

The traffic originating at prepayment stations is of no mean proportions, and there are about 625 stations of this type in Plaza and 415 in Lenox.

The Company's Greatest Asset

Finally, it is proper that mention be made of the very hearty co-operation and splendid loyalty which is and has in the past been exhibited by the employees stationed in all departments in these districts. It is a source of the utmost satisfaction to the company to realize that its interests are safe in the hands of these employees who feel a personal responsibility in pleasing subscribers regardless of how critical they may be. The strongest recommendation which men, who are called upon to visit these subscribers and ask permission to enter their premises, can receive is an invitation sent to the office to "have that man come again," an occurrence which is far from rare.

Growth in Lines and Stations

The growth in lines and stations of the Plaza and Lenox Districts is shown by the following table:

	Lenox		*Plaza*	
	Lines	*Stations*	*Lines*	*Stations*
January 1, 1907	4,905	7,609	4,898	9,801
January 1, 1908	5,432	8,573	5,288	11,630
January 1, 1909	5,659	9,107	5,450	12,431
January 1, 1910	6,027	9,811	5,764	13,230
January 1, 1911	6,344	10,332	6,100	13,932
January 1, 1912	6,716	10,932	6,362	14,679
January 1, 1913	7,300	12,100	6,737	15,502

In addition, statistics below of March 13 and 14, 1913, may be of interest:

	Lenox	*Plaza*
Total number of lines in service	7,365	6,840
Total number of stations in service	12,220	15,779
Average number of originating calls busy hour	6,846	8,663
Theoretical busy hour load per operator originating calls	166	166

Digitized by Google

The Telephone Society of New York

SIXTEEN years ago the Telephone Society of New York started with a membership of sixty-four, and its operations were confined to New York City alone. To-day we find this organization composed of four sections, Main, covering the Down State Territory (Manhattan-Bronx, Westchester, Long Island and New Jersey), and the others taking in the fields covered by the Up State Divisions (Hudson, Central and Western). From sixty-four the membership has grown to exactly four thousand, embracing the Western Electric, Western Union and American Telephone & Telegraph Companies as well as the New York Telephone Company.

All the members of the Society will probably voice the opinion that the season of 1912-1913 has been by far the most successful and interesting in its history. Aside from the continued rapid growth, its progress has shown itself in many other ways. The efforts of officers and committees to arrange meetings which would serve to quicken the interest of members and induce them to attend in large numbers have achieved marked results. Members have come to look upon these meetings as something they cannot afford to miss, for in so doing, opportunities might be lost to improve themselves and assist the Associated Companies in promoting efficiency, and a better and better understanding of the work they are trying to accomplish.

The success of the Society is due in a large measure to the able and efficient work of President D. C. Cox, and the results of his efforts speak for themselves.

The creating of the three Sections Up State has solved the problem of giving employees all over the territory an opportunity to meet and take advantage of the privileges extended by an organization of this character. In times past, owing to the distances of Up State cities and towns from New York, it has been practically impossible for members to attend meetings there. After the Up State Sections were established, the same conditions arose in each, and members located far from Albany, Syracuse and Buffalo were prevented from attending meetings in these places. Consequently, it was arranged to hold District meetings in various parts of these divisions with the two-fold result of enlarging the field and increasing the membership of each of these Sections. The plan of holding District meetings in the Down State Divisions has been carefully considered and a thorough canvass made, but it has been found that they are unnecessary, as all points in these Divisions are comparatively near New York, and members look forward to meeting there.

Another successful feature of the season's work has been the visits of several Down State officials to the Up State Sections. In some cases papers were especially prepared by these speakers, and in others papers previously read at meetings in New York were repeated. That the time and effort expended by these gentlemen in taking these trips have been heartily appreciated is shown by the large and enthusiastic audiences which have greeted them.

The details of the season's work are best summed up by reviewing briefly the work of each section.

Main Section

IF any member of the Main Section were asked to state briefly the most successful and pleasing feature of the season's work, he would undoubtedly point out the social gatherings which have been held. Through the efforts of the Reception Committee, who realized the cold formality attached to opening a meeting, listening to papers and addresses and filing out, arrangements were made for social gatherings after each meeting where refreshments were served. The success of these occasions which has had a marked effect upon the attendance at meetings has been due in no small measure to the entertainments furnished by the Blue Bell Glee Club and Blue Bell Orchestra.

In view of the fact that the additional expense of furnishing refreshments and entertainments in the Main Section has been found to be about $250 per night, the raising of the annual dues was contemplated, but inasmuch as the Associated Companies were so greatly benefited by the bringing together of the employees from all departments and in all territories, it has been recommended that these companies contribute fifty cents for each of their members to defray this expense.

The papers read at meetings have been of such a character that all telephone men, in whatever capacity employed, could thoroughly understand and appreciate them. With all due repect to all the speakers who have favored the Section it is safe to say that one of the crowning papers of the season was that delivered by Mr. Thomas A. Watson in January on "Just Before and Just After the Birth of the Telephone." This masterly paper afforded a rare opportunity to listen to the first person who heard a voice over the telephone, and his remarks evoked the greatest enthusiasm.

During the Convention of The Telephone Pioneers of America in November the Telephone Society tendered a successful reception to these distinguished telephone men and showed that its members are capable hosts. The principal feature of the occasion was the play "Examinations" which gave Thespians in the telephone field an opportunity to display their rare talents. Its success led to a desire to repeat the performance but much to the regret of all, circumstances prevented.

As a fitting climax to the season's activities, the final meeting on May 21 was a Greater New York Telephone Society gathering at which the chairmen of the Up-State Sections were present, and papers were read by heads of several departments in the Up-State Divisions.

The average attendance at meetings during the season was 860, and the membership of the Main Section is now 2,663 as compared with 2,461 at the last annual meeting.

The creditable gain in membership was reduced considerably by reason of a great number of members being transferred to other Companies or other Divisions of the territory, which necessitated withdrawal from the Section.

Great credit is due to the untiring efforts of Mr. P. O. Coffin, Chairman, and the Membership Committee for the results achieved.

Successful as the season has been, we are promised still greater things for 1913-1914, and with the efficient officers and committees in charge much may be expected.

The following is a list of the meetings and speakers during the season: October, "A Short Review of the Progress of the New York Telephone Company Since 1892" by Mr. J. A. Stewart, General Manager; November, A reception to the Telephone Pioneers of America; December, "Doing Business with the Public" by Mr. E. K. Hall, Vice-President, New England Telephone and Telegraph Company; January, "Just Before and Just After the Birth of the Telephone" by Mr. Thomas A. Watson; February,

Digitized by Google

"Some Phases of the Employees' Pension, Benefit and Insurance Plan," by Mr. T. P. Sylvan; March, A paper on the growth of the telephone in New York City by Mr. F. H. Bethell, Vice-President; April, "The Engineering Laboratories of the Western Electric —Their Problems and Their Relations to the Telephone Business," by Mr. E. B. Craft, Development Engineer of the Western Electric Company; May, Annual Meeting, four short addresses by Mr. C. A. Spaulding, Division Commercial Manager, Western Division; Mr. E. G. Anderson, Division Superintendent of Traffic, Hudson Division; Mr. F. J. Chesterman, Division Superintendent of Plant, Central Division; and Mr. A. W. Deas, Division Auditor of Receipts.

The officers of the Main Section for 1913-1914 are as follows: President, Mr. D. C. Cox, New York Telephone Company; Vice-President, Mr. F. B. Jewett, Western Electric Co.; Secretary-Treasurer, Mr. R. S. Scarburgh, New York Telephone Company. Executive Committee: Messrs. G. L. Yates, I. J. Thorp, P. O. Coffin, New York Telephone Company; F. W. Lienau, Western Union Telegraph Co.; C. A. Merrill, Western Electric Co., and L. F. Morehouse, American Telephone and Telegraph Company.

Hudson Section

THE Hudson Section carries off first honors in securing new members. At its beginning of the season there were 180 members, and there are now 625, an increase of over 300 per cent. At one meeting held on March 20, at Albany, 314 applications were approved (a number greater than the then-existing membership) and the total membership jumped to the 600 mark.

The Albany meetings have been notable for the excellence of the papers and the desire of members to discuss them generally. Some have spoken extemporaneously, while others have acted on the suggestion of the Papers and Meetings Committee and prepared notes which they have read. These papers have been read: "A Short Review of the Progress Made by the New York Telephone Company Since 1892" by Mr. J. A. Stewart, General Manager; "Our Work in the Hudson Division and a Look Into the Future" by Mr. J. A. Jamison, Jr., Division General Manager; "Employees' Pension Disability and Insurance Plan" by Mr. T. P. Sylvan; "The Message Rate" by Mr. F. H. Bethell, Vice-President; and "Our Accounting Work" by Mr. P. O. Coffin, Auditor of Receipts.

District meetings have been held at Newburgh, Poughkeepsie, Kingston and Glens Falls at which the following papers have been read: "Our Work in the Hudson Division and a Look Into the Future" by Mr. J. A. Jamison, Jr., Division General Manager; "Installation Work" by Mr. E. H. Greenleaf, District Plant Superintendent; "The Work of the Plant Department" by Mr. C. H. Teegarden, District Plant Superintendent, and "Efficient Work" by Mr. Willis Hills, District Manager.

An interesting feature of the District meetings has been a question box with the idea of having questions concerning the telephone business propounded at a meeting and answered at the following one. This plan has proved very valuable and beneficial. Many have taken part in the discussions, each man seeming to realize that their success depended on his personal participation.

The last meeting of the season will probably be held in June when officers will be elected for the ensuing year.

No review of the season's work would be complete without a word of praise to the Blue Bell Orchestra of fourteen pieces, the Glee Club of thirty-five voices and four soloists, and the Mandolin Club of seven pieces. These Clubs organized late in the season, but their work has been highly commendable and much pleasure is anticipated from their work next season.

Central Section

THE Central Section held ten meetings during the season of 1912-1913, which has been a most interesting one. There has not been a single paper, or a feature of any evening, that has not been of great interest. The papers have been well balanced between those of local or Division authorship and contributions by visiting officials. The Section has been favored in listening to seven officials from New York who have come here expressly to address the Section; and the Papers and Meetings Committee has been especially fortunate in its selection of subjects for the Division papers, and the men to prepare them.

The complete program of the year is as follows: June, "Clerical Efficiency" by Mr. E. W. Moister, Auditor of Disbursements, American Telephone and Telegraph Company; September, "The Advertising Department" by Mr. R. S. Scarburgh, Advertising Manager; October, "Some Points of Interest in Traffic Work" by Mr. R. H. Boggs, Division Superintendent of Traffic, Long Island Division; November, "A Short Review of the Progress Made by the New York Telephone Company Since 1892" by Mr. J. A. Stewart, General Manager; December, "Some Problems in Joint Office Operation" by Mr. W. C. Sexsmith, District Manager, Binghamton District; January, "The Manufacture of Paper Insulated, Lead Covered Telegraph and Telephone Cable" by Mr. A. H. Howard, Sales Department, Western Electric Company; February, "Some Phases of the Employees' Pension, Disability and Insurance Plan" by Mr. T. P. Sylvan, Secretary Employees' Benefit Fund Committee; March, "Protecting the Service" by Mr. F. H. Bethell, Vice-President; "A Broad Viewpoint" by Mr. J. S. Wiley, General Auditor—Mr. J. A. Stewart, General Manager, also addressed this meeting; April, "Plant Engineering" by Messrs. E. J. Buchaca and L. D. Layton, Engineers; May, "Consolidation Problems" by Messrs. E. M. Gladden, J. B. Wittan, C. H. VanDenburg, A. Messe, W. T. Love, R. M. Gillespie, J. R. Land and L. A. Wilcox, of the Syracuse Office.

The Section now has 271 members. The meetings seem to have brought the employees closer together, and not only the papers but the informal talks of the evenings have been of a fine, wholesome nature.

On one occasion when Vice-President Bethell, General Manager Stewart and General Auditor Wiley visited the Section, it was favored also by the presence of Messrs. F. G. Wood and C. A. Nicholson, who founded the Bell telephone business in Central New York, and C. H. Poole of the Utica Home Company and H. C. Mandeville of the York State Telephone Company.

The Section tried the experiment of a social evening, which took the form of a dinner where all the bosses refused to sit at the head of the table, preferring to line up with the "other fellows." This meeting did much to weld the inter-departmental and intra-departmental elements together, and the excellent papers of the evening, after all the sociability, made the proper climax.

There will be one more meeting this season. In the fall the new officers will start another season with enthusiasm.

The officers for 1913-1914 are Chairman, L. L. Cleaves; Vice-Chairman, A. L. Fox; Secretary-Treasurer, E. E. Lines. The members of the Executive Committee are Messrs. J. L. Parker, E. J. Buchaca and B. H. Shepard.

Digitized by Google

Western Section

FROM an organization with only 46 charter members, the Western Section has shown a steady growth and on May 1 it had a membership of 441. The meetings in Buffalo have been largely attended, and as nearly all the papers presented there have been repeated for the benefit of the Rochester branch, the Division has been well covered. The papers have been on a par with the high standard set during the previous season.

The closing meetings were held at Buffalo May 23, and at Rochester May 28, and at these meetings the social element was emphasized for the first time since the organization of the Section. So successful were these get-together occasions that it has been decided to hold several of them next season.

The following is a list of the papers and speakers during the season: November, "A Short Review of the Progress Made by the New York Telephone Company Since 1892" by Mr. J. A. Stewart, General Manager; December, "The Revenue Accounting Department, Metropolitan Division: Something of Its Work and Relation to Other Departments" by Mr. E. C. Mitchell, Division Auditor of Receipts, Metropolitan Division; January, "Advertising" by Mr. R. S. Scarburgh, Advertising Manager; February, "Some Phases of the Employees' Pension, Disability and Insurance Plan" by Mr. T. P. Sylvan, Secretary of the Employees' Pension Fund Committee; March, "Protecting the Service" by Mr. F. H. Bethell, Vice-President; April, "The Business End of Our Business from the View Point of a District Manager" by Mr. W. J. O'Hea, District Manager, Rochester; May, Messrs. C. A. Spaulding, Division Commercial Manager, P. O. Jacobs, Division Plant Superintendent, H. W. Benedict, District Traffic Chief, Rochester (acting for Mr. Welch, Division Superintendent of Traffic), A. W. Deas, Division Auditor of Receipts and J. S. McCulloh, General Commercial Superintendent, spoke of the work of their departments since January 1.

At the meeting on April 17 the following officers were elected for the season of 1913-1914: Chairman, V. C. Mott; Vice-Chairman, H. W. Gaul.

May Meetings

Main Section

ABOUT 750 members attended the annual meeting of the Greater New York Telephone Society at the United Engineers' Building, Manhattan, on May 21. This was the last meeting of the season, and President Cox announced that the Society would resume operations in October.

Dispensing with the reading of the minutes, Mr. R. S. Scarburgh, Secretary-Treasurer, read his annual report, which was accepted and filed. Sixteen new members were duly elected to the Main Section.

Election of Officers

Mr. J. S. McCulloh, Chairman of the Nominating Committee, then took the chair and presented the report of his committee. Other nominations were called for, but there being none, the candidates recommended by the Committee were unanimously elected by a rising vote, as follows:

President—D. C. Cox, New York Telephone Co.; *Vice-President*—F. B. Jewett, Western Electric Co.; *Secretary-Treasurer*—R. S. Scarburgh, New York Telephone Co.

Executive Committee—G. L. Yates, New York Telephone Co.; I. J. Thorp, New York Telephone Co.; P. O. Coffin, New York Telephone Co.; F. W. Lienau, Western Union Telegraph Co.; C. A. Merrill, Western Electric Co.; L. F. Morehouse, American Telephone and Telegraph Co.

Interesting Addresses

The President then returned to the chair, and introduced the four speakers of the evening in turn. The subjects and speakers were as follows:

1. "Characteristic Commercial Conditions and Work in the Hudson, Central and Western Divisions," Mr. C. A. Spaulding, Division Commercial Manager—Western.

2. "Where the Up-State Telephone Traffic Originates," Mr. E. G. Anderson, Division Traffic Superintendent—Hudson.

3. "Review of Plant Work in the Up-State Divisions," Mr. F. J. Chesterman, Division Plant Superintendent—Central.

4. "Revenue Accounting Work in the Up-State Divisions," Mr. A. W. Deas, Division Auditor of Receipts.

The subjects of the papers give a very definite idea of their character, but it is necessary to have been present to appreciate their delivery and the interest they created.

Up-State Problems and Conditions

Each speaker covered in his paper the three Up-State Divisions. They described the work of each department so clearly with reference to the specific problems which distinguish these three divisions each from the other, as they also differentiate them from what is termed the Down-State Divisions, that the addresses were unusually instructive.

These problems are due to almost every cause, from geographical and topographical conditions to agricultural, manufacturing and commercial pursuits.

The policy of the New York Telephone Co. towards standardization has made necessary almost a complete reconstruction of plant in many localities, and almost complete revision of methods in all the divisions, all of which had to be carried on together with the extension of the System and the securing and handling of new business.

The manner in which this has been done reflects the highest credit upon all the forces Up-State, and the speakers were unstinted in their praise to their fellow-workers for the results accomplished.

There is no doubt that the addresses went a long way towards promoting a better understanding of the situation Up-State in the minds of those present, and creating a feeling of more intimate relationship with all parts of the territory than has existed before.

Informal

The papers were followed by brief remarks appertaining to them, by Mr. J. A. Stewart, General Manager, New York Telephone Co. President Cox then reviewed the work accomplished by the Society during the year and expressed the belief that the future would see more of the same sort. He referred to the successful play, "Examinations," presented at the reception given by the Society to the Telephone Pioneers of America last November, and called upon the author, Mr. Angus S. Hibbard, for a few remarks.

The meeting then adjourned, and a most successful year was concluded with selections by the Blue Bell Orchestra, refreshments and a general informal gathering.

Digitized by Google

Hudson Section

THE meeting of the Hudson Section of the Telephone Society of New York on the evening of May 15 was attended by over 300 members and was one of the most interesting and enjoyable of the season. The speaker of the evening was Mr. P. O. Coffin, Auditor of Receipts, New York Telephone Company, who chose for his subject "Our Accounting Work." Mr. Coffin handled the subject along such broad and comprehensive lines as to win the earnest attention of his audience from the very beginning, and by his thorough grasp of the subject and his convincing manner held the interest of all. The paper gave an insight into the work of the various accounting offices in such a way as to reveal the very important part which this department fills in our organization.

Following Mr. Coffin's paper timely and interesting remarks were made by Messrs. A. W. Deas, Division Auditor of Receipts; J. P. Hill, Revenue Supervisor; J. K. Maisch, Division Chief Clerk, Commercial Department; H. P. Miller, Division Sub-License Manager; C. E. White, District Traffic Chief; and T. M. McDermott, Traveling Auditor.

Another pleasant feature of the evening was a short address by Mr. P. J. Tierney, Manager Central Cable Office, Western Union Telegraph Company, New York City, who described interesting features of the cable business. Mr. John Simonds, Division Cable Manager, Western Union Telegraph Company, New York, also spoke instructively on the development of new business.

Thirty new members were elected, bringing the total membership up to 625. The last meeting of the season at which officers for the following year will be elected will take place in June.

Western Section

THE 15th meeting of the Western Section of the Telephone Society of New York was held in the new Telephone Building, Buffalo, on May 23 and was the largest ever held in the Western Section—there being over 450 employees of the Associated Companies present.

The Secretary-Treasurer announced that the membership was 433 and that the Section had $521 in the bank. Nine new members were elected.

It was originally hoped that Mr. W. J. Hiss, former Division General Manager of the Western Division, would be present to speak on "Some Reminiscences." It had also been planned to give Mr. Hiss a general idea of the progress which the different departments had made since his departure for St. Louis, but, owing to pressure of business, he was unable to attend.

The speakers for the evening were Messrs. C. A. Spaulding, Division Commercial Manager; P. O. Jacobs, Division Plant Superintendent; H. W. Benedict, District Traffic Chief, Rochester, acting for Mr. Welch, Division Superintendent of Traffic, who was unable to be present; A. W. Deas, Division Auditor of Receipts; and J. S. McCulloh, General Commercial Superintendent, each of whom spoke of the work of their departments since January 1 and the results which they expected to accomplish before the close of the year.

The papers having been read, the meeting was informally opened to an entertainment which included a piano selection by Mr. George L. Lowery; a piano and mandolin selection by Mr. H. A. Seales of the Commercial Department and Mr. James McGill of the Plant Department, and three vocal selections from Messrs. H. C. Stephan, Local Manager, Buffalo; A. L. Lawson of the Plant Department; and F. S. True, of the Commercial Department.

As a fitting close to the season's Society meetings a buffet supper was served. Everyone present made the most of the occasion and pronounced the evening the most successful and interesting ever held by the Telephone Society of New York in the Western Division.

"TELEPHONE I WANT MORE MILK."
Sketch which accompanied the Advertising Contest suggestion of Alexander L. Ehrlich, Plant Dept., Manhattan.

Although the above sketch as well as the one on page 170 did not win a prize in the Advertising Contest, we reproduce them as deserving of mention because of their humorous value.

Philadelphia Telephone Society

THE tenth anniversary of the Philadelphia Telephone Society was celebrated on May 20 by the greatest gathering of telephone people that ever assembled in the City of Brotherly Love.

There was no hall large enough to hold all who wished to come, and the best that could be done was to engage the Metropolitan Opera House, with a capacity of 3,800, every inch of which was filled.

All the orchestra seats were given over to the operating forces, stenographers and other women employees, while the members of the Society and other male employees occupied the balconies. The boxes were occupied principally by invited guests, of whom there was a large number from New York, Baltimore and elsewhere.

Addresses were delivered by Mr. W. W. Young, Traffic Superintendent, Philadelphia; Mr. J. H. Crosman, Jr., General Commercial Superintendent; Mr. H. F. Thurber, Vice-President; Mr. J. S. Wiley, General Auditor; Mr. W. T. LaRoche, General Superintendent of Plant; Mr. N. Hayward, Engineer, and Mr. L. H. Kinnard, Second Vice-President and General Manager.

The Philadelphia Telephone Society Orchestra, the Philadelphia Telephone Society Male Chorus, and the Chorus of Women, composed entirely of employees, deserve especial praise, although other numbers on the programme, which were given as a Cabaret performance, were admirably rendered.

After the addresses were delivered, a rapid fire sketch artist drew pictures of a number of prominent telephone people, and then the curtain went up upon the stage set as a popular restaurant. This required several hundred employees of both sexes, and the appearance was both realistic and most attractive.

The Cabaret show consisted of a Maids' and Waiters' Dance, musical melodies played upon everything, as the *Philadelphia Public Ledger* stated "from a sweet potato to a Chinese fiddle with one string," the Tango danced by two couples most charmingly, solos, choruses and a "Billiken Dance." The Society and all who participated deserve the greatest credit for the splendid and successful entertainment.

Before the performance, a dinner was given by several local officials to prominent visitors, and afterwards there were many suppers and other social gatherings.

Digitized by Google

THE SOUTHERN MANHATTAN INSTALLATION FORCE OF 129 MEN UNDER FOREMEN SCOFIELD, OUTERSON, ALBRECHTSON AND FITZSIMMONS WHO DID THE BIGGEST JOB IN THE HISTORY OF THE COMPANY ON MAY REMOVALS WITHOUT A COMPLAINT FROM A SUBSCRIBER OR A CONTRACT ORDER OVERDUE.

The May Rush With the Southern Manhattan Installation Force

TO the Commercial and Plant forces of the Metropolitan Division the "May Rush" implies an unusually busy period, extending from about April 15 to May 15 of each year.

Causes of Activity on May 1

The cause of the enormous activity in the telephone business at this time of the year is that nearly all leases of buildings, lofts or offices in Southern Manhattan begin or expire on the first day of May. The completion of most of the sky-scrapers is, whenever possible, scheduled for May 1, because it is at this time that floor space is most readily leased. The razing of many old buildings to make way for the modern steel type office buildings is also a cause for much of the business during this period as the subscribers who occupied these old buildings must be moved to new quarters with little, if any, interruption to their service.

The territory most seriously affected by the "May Rush" is that part of Manhattan south of Chambers Street in which are located many great office buildings.

Division of Forces

This year the Field Force was divided into four sections of about thirty installers each, the sections being supervised by Foreman Scofield, Outerson, Albrechtson and Fitzsimmons, respectively. The work of the District Office was directed by Mr. Ives with a force of nine clerks.

Work Accomplished

The amount of work on hand April 1 was about normal; April 15, the load had increased threefold, and by April 26 it was five times the normal load. The work accomplished between April 15 and May 15 may be summarized as follows:

Branch Exchange Switchboards Installed:		
3-position	5	
2-position	12	
1-position	118	
Monitors	180	
		315
New Line Orders and outside removals	1,763	
Inside Removal Orders	1,258	
Disconnection Orders	1,338	
Miscellaneous Orders	1,247	
		5,921
The wire used:		
Twisted inside wire	328,343 feet	
Triple inside wire	15,994 feet	
Twisted bridle wire	27,587 feet	
		371,924 feet
Lead covered switchboard cable of the smaller sizes—5 to 26 pairs		24,908 feet

In order to provide a suitable force for handling the work at this period, the Up-town District Foremen furnished first-class men who had worked in the district before. These men were not only familiar with the conditions but were enthusiastic about the work. For this reason it was possible to handle the large number of orders

Digitized by Google

outlined above with a maximum of only 129 men.

"Preparedness"

Due to the activity of the Commercial Department whose agents kept in close touch with real estate firms and renting agents, orders covering the larger moves were secured in advance. Work orders were at once forwarded by the Order Clerk to the Installation Force, and a survey of each switchboard job was made by a foreman. If cable work were necessary, the Plant Engineer was advised and specifications promptly prepared and forwarded to the Cable Force, which by keeping in touch with the Installation Force completed its work as the jobs were required. In this way it was possible for the cable and much of the station wire work to be done before the subscriber moved.

Because of the high-class service rendered by the Repair Shop, switchboards of standard sizes were at all times available, while the preparedness of the Division Supply Force was evidenced by the prompt delivery of apparatus and the few items of material reported "out of stock" during the entire period.

Moving by Schedule

Another factor which was very helpful to the Installation Force in meeting the requirements of subscribers was that moving in all of the larger buildings was done by schedule, and that arrangements had to be made with the building authorities, who assigned a day and an hour when the necessary elevator service would be available to care for their belongings. In this way all congestion which would follow if tenants were allowed to suit their own convenience about moving was avoided. A live installation foreman, by closely following the Building Superintendent's bookings, was enabled to meet the incoming tenant with full service established in his new quarters.

New Woolworth Building

The largest single job encountered during the "May Rush" of 1913 was providing service for tenants moving into the new 57-story Woolworth Building, the service required varying from single direct line to a 3-position multiple P. B. X. with twenty trunks, sixty-seven stations and six tie lines. Switchboards, apparatus, and wire used in the building were as follows:

Twisted Inside Wire	75,875 ft.
Double Distributing Board Wire	9,000 ft.
Complete Subscriber Sets	932
Monitors	70
P. B. X. Switchboards	23

Through the courtesy of the Superintendent of the Woolworth Building, Mr. E. A. Cochran (it should be said here that the Installation Force expresses its thanks for his many kindnesses and acts of co-operation during this time), a large room on the seventeenth floor was assigned to the Installation Force to use as an office and storeroom. This room, being centrally located, was selected to save time in travelling. An exchange line which was installed in this room proved of great value as a means of saving time in securing locations from subscribers. Instead of visiting a subscriber and getting his proposed switchboard and station locations from some home-made sketch of his space, it was the practice to arrange with him to meet our representative at the building and decide upon the exact location of his switchboard and stations. By having the subscriber indicate these locations on our floor plan, misunderstandings which might otherwise have arisen were entirely avoided.

In Emergencies Use the Telephone

It is difficult for one to appreciate how large this building is, and it is only after going about from the basement to the tower that one realizes its size. A certain installer has been heard to make various estimates as to the distance from the forty-seventh floor to the street. It is related that after completing a fine piece of work on the forty-seventh floor at about 11:00 P. M. he decided to "pack up" and go home. In due time he pushed the elevator call button but it refused to operate, and it was only then he realized that the elevators were shut down for the night. After considerable heavy thinking and deliberate calculating he concluded that from his viewpoint the Woolworth was "some building." It also occurred to this installer that somewhere it is written, "In emergencies use the telephone!", and straightway he utilized the instrument he had just installed to notify the Engine Room that he was marooned on the forty-seventh floor and that there was a real live chance open for a rescue.

"Team Work"

The results accomplished during the "May Rush" in 1913 may be summarized as follows:

1st. Every subscriber in the territory had service when he was ready for it.

2nd. No complaints were received.

3rd. No contract orders were overdue.

4th. For the first time the Clerical Force handled the office work without any overtime.

The above results were possible only because of a splendid *esprit de corps*. The foremen by carefully following the details kept the many ends well in hand and were always "on top of the job." The enthusiasm of the foremen was manifested by the installers who worked not for them but with them. It was team work of a high order by a force of skillful and willing men. Where these conditions obtain no task is impossible.—J. A. LYNCH, Installation Foreman, Southern District, Manhattan.

DISTRICT INSTALLATION OFFICE, 30 GOLD ST.

Digitized by Google

Exercise is Necessary to All, but Particularly Valuable to Brain Workers; Careful Selection of Food and Regular Hours of Sleep are Imperative

Personal Hygiene

BY DR. ALVAH H. DOTY

Medical Adviser of the Employees' Benefit Fund Committee

Plenty of Fresh Air Should Be Allowed to Enter the Sleeping Room; Care Should Be Observed in the Selection of Proper Clothing

PERSONAL hygiene relates to the means by which our individual health is preserved. The most important of these are exercise, proper care of the digestive or alimentary tract, cleanliness, sleep, and appropriate clothing.

EXERCISE

Exercise is essential to health in many ways. It aids in securing good digestion, proper sleep, and helps to maintain the activity of the various functions of the body. Without it the lungs are not properly inflated, and are far less able to resist the attack of certain diseases which commonly affect these organs, for instance, tuberculosis; besides, various parts of the body when not properly exercised become diminished in size and importance.

While exercise is necessary to all, it is particularly valuable to the so-called brain workers, who during the day and very often at night are engaged in work which constantly calls for increased activity on the part of this organ. To provide for this a greater supply of blood is required. If this is continued over many years the smaller vessels of the brain become dilated or stretched, and later in life may cause serious results. However, long before this change takes place a warning is given of an overtaxed brain in the form of headache, dizziness, faintness, and various forms of nervousness, which frequently affect the class of people referred to above.

Proper exercise relieves this overcharged condition of the brain by drawing from it through the activity of the muscular system the excess of blood. Other overworked organs, particularly those of the digestive tract are similarly relieved by exercise. Upon this simple method of adjusting the circulation largely depends the preservation of our health.

Walking

Walking is the natural and proper means of obtaining exercise, and is superior to all other methods. While horseback riding, rowing, and tennis are exhilarating and healthful, and although the gymnasium and innumerable other means of exercise have their uses, none secure the permanent benefit obtained by a daily walk in the open air, nor should they be accepted as substitutes for this.

The game of golf which in late years has become so popular in this country, is practically walking made pleasant and interesting, and there is probably no method of exercise ever practiced which has contributed more to the repair of health of those who have overtaxed their brains and digestive tract than this game; furthermore, it is suitable for anyone.

The substantial benefits obtained by walking depend *chiefly upon the regularity with which it is performed.* A walk of from four to six miles daily may be regarded as a fair average for an adult, and the result is far more effective when the distance is covered at one time. A good even pace should be taken, although it is not needed that one should walk too fast. The shoulders should be erect, and full respirations should frequently be taken. The value of expanding the lungs and thereby insuring full ventilation has already been referred to in a previous article.

It is not proper that a long walk should be taken immediately after a full meal, for at that time an increased quantity of blood is needed for digestion, and too much exercise may interfere with this important act.

Those who are constantly under mental strain often experience a sense of fatigue, this is as a rule a mental, and not a physical condition, and the proper remedy for it is exercise in the open air and not rest.

DIETETICS

The importance of protecting the digestive or alimentary tract from improper or too much food has already been referred to. Plain, simple, and easily digested articles of diet constitute the normal and healthy means of securing nourishment, without injury to the organs concerned in this important function. The value of this form of food and the absence of trouble in connection with its digestion has been clearly demonstrated. Advanced civilization has to a great extent destroyed this simple habit, and has substituted a desire for rich and fancy dishes, which is an acquired taste and is dearly paid for in more ways than one.

Coffee and Tea

The subject of coffee and tea, their advantages and disadvantages, is so frequently discussed that it requires no special comment here, save to state that while these stimulants may be taken by adults in a reasonable amount without injury, it is neither healthful nor proper that children or young people should become addicted to their use. They are positively injurious at this age, for they not only impair digestion, but lead to various forms of nervous trouble which are difficult to overcome, the unpleasant results of which may be traced in after life.

Cleanliness

Cleanliness of the person is not only necessary, but it is also pleasurable to those who practice it. The skin through its millions of little ducts is constantly discharging waste matter from the body. As a means of protection its surface is supplied with an imperceptible coating of fatty matter, and a scaly layer. If these various substances are not promptly removed, they decompose and become offensive, and the skin is not only unable to perform its function properly, but may become roughened, irritated, and in some instances intractable forms of skin disease may follow.

The skin cannot be properly cleaned unless there is a free use of soap in order that the greasy substance may be saponified and the surface well cleared of all waste matter.

Bathing

The frequency with which a person should bathe to secure cleanliness, depends largely upon the character of work which is performed, climatic conditions, etc. Except in very warm weather two good baths a week are usually sufficient for this purpose. These should be taken warm and just before retiring, for as the skin is more susceptible after a warm bath, immediate exposure to the outside air might be followed by unpleasant results.

Among those who have received early training in this direction, or who observe special care of their person a daily bath is taken upon rising. This usually consists of a cold sponge, shower, or tub bath, depending on selection, or the facilities which are available for each person. Their value and invigorating effect depends upon the susceptibility, health, and age of the person, for everyone is not similarly affected. If the bath acts pleasantly there should be a prompt reaction, i. e., the shock which occurs when the cold water comes in contact with the skin, and which for the moment diminishes the amount of blood on the surface of the body, should be quickly followed by reaction, and a healthy glow of the skin, particularly if a towel is briskly used. If the reaction does not occur, or if the bath is followed by depression, or weakness, this method should be discontinued.

A cold sponge or shower bath is less likely to cause unpleasant results than a cold tub bath, for the latter is far less stimulating, and the tub is better adapted for the warm cleansing bath. Many even in health, cannot upon rising take a cold bath without considerable shock, for at this time the circulation is less active, and the supply of blood to the skin is somewhat diminished in amount, and therefore less able to protect against the sudden reduction in temperature. This may be overcome, and the shower bath rendered even more invigorating, by first using a shower of very warm water for a half a minute or so; this brings the blood quickly to the surface, then as a rule the cold water may be turned on with the most satisfactory results. This form of bath has additional value, for by keeping the superficial blood vessels of the

Digitized by Google

skin well stimulated it goes far to prevent catching cold.

Turkish, Russian, and various other forms of baths which are extensively recommended and advertised, are not essential to health. They are pleasurable to many, and in certain physical conditions may be of some special value, but they cannot be used with impunity and are often injurious, particularly to those who have organic trouble or who are advanced in years, besides, they offer practically nothing which the simple methods of cleanliness already referred to do not provide for.

Sea and fresh water bathing are for pleasure rather than cleanliness. Those who delight in this form of bathing commonly remain in the water too long, and in various ways suffer from it. Open air bathing is not without danger to those in feeble health or who are advanced in years, besides, they should not be indulged in for at least two hours after eating. The "cramps" which often occur while bathing, are probably in many instances due directly or indirectly to interference with the process of digestion which may be active at the time.

TEETH

The care of the teeth is an exceedingly important factor in the preservation of health, for aside from the unpleasant odor and appearance associated with decay, imperfect or a diminished number of teeth sooner or later lead to impaired digestion. The public are not aware of the seriousness of this condition, or the frequency with which defective teeth are found. A recent report of the dental clinics in New York City show that of 1,694 children examined, only 11 of them were found to have normal teeth. If this condition occurs in children, what may be found in adult life? It at least clearly indicates the necessity for a most careful consideration of the subject.

The teeth should be thoroughly brushed upon rising and at bed time, with a medium sized and moderately stiff brush, for the purpose of removing particles of food. A good powder for this purpose may be purchased for a small price at any drug store, or precipitated chalk which is quite cheap may be used instead.

It is also desirable that the mouth should be rinsed at least night and morning with water, or even better, a solution of salt or bicarbonate of soda, one-quarter of a teaspoonful of either to a glass of water; this should be used to dislodge more fully any particles of organic matter. Great cleanliness of the mouth must be observed on the part of those who use artificial teeth.

The frequent use of acid substances is more or less injurious, such as lemons, grape fruit, etc.; the bad effect of these may be neutralized if the mouth is afterward rinsed with the solution of bicarbonate of soda already mentioned.

FEET AND HANDS

The feet and hands must also be carefully looked after. In the regulations of the various armies throughout the world, may be found the most minute instructions as to the care of the former, for if they are not in good shape, soldiers may become unfit for service, if their marching ability is impaired. Carelessness in this direction occurs largely because the feet are not exposed to view, and for the same reason cleanliness in this direction is often not practiced. Care of the feet in childhood usually insures a shapely foot in the adult. Corns, bunions, ingrowing nails, etc., should be dealt with promptly. Tight and ill-fitting shoes must be guarded against, and stockings frequently changed. The feet should be daily cleaned with soap and warm water, and then douched with cold water and very carefully dried, particularly between the toes.

No detail of personal hygiene makes so favorable an impression as clean hands and well trimmed nails. A nail file may be purchased at a very low price at any of the department stores, and the vigorous use of the nail brush two or three times during the day is all that is needed for this purpose. The nails may be very satisfactorily polished with the palm of the hand upon which is placed a little powder to create friction. The care of the nails is not only for appearance sake, for if not properly attended to, they accumulate germs, and may act as media of infection.

SLEEP

Sleep is the natural means of securing rest, both for the body and the mind. The number of hours required for this purpose, as in other matters relating to personal hygiene, depends largely on the occupation and general condition of each person. Those who are actively engaged in brain work or physical exercise, need more sleep than those of sedentary habits. No definite rule can be followed as to the time required for this purpose, although in a general way it may be said, that adults should have from six to eight hours' sleep during the twenty-four hours, and children much longer. Sleep should be taken at night, and as near as possible at the same time. Sleeplessness or insomnia is a very common affection, but is far less difficult to deal with if a little study is given to its cause.

Insomnia

Nature will supply sleep unless there is something to prevent it in the way of ill health or some transient cause in the shape of worry or excitement. Therefore if insomnia exists, it should be our object to ascertain its cause and treat it, rather than to deal with the insomnia itself. Nothing is more injurious than a resort to drugs for this purpose, for medicines which produce sleep usually weaken the heart and depress the general system, and in various ways may delay a return to the normal condition of health which is the object in view; furthermore the use of drugs to produce sleep leads to a dangerous and pernicious habit, and too much cannot be said in condemnation of the innumerable remedies which are advertised for this purpose. A person who suffers from insomnia for a protracted period is not in a normal condition of health and should consult a physician, and not resort to the use of the so-called sleeping agents.

Fresh Air

During sleep, the heart and lungs are less active, and under these conditons it is essential that the diminished amount of air taken in should be as fresh as possible, and it is for this reason that benefit is derived from open windows during sleeping hours, or even better, the habit of sleeping in some outside apartment, or out of doors. It may be added that while plenty of fresh air should be allowed to enter the sleeping room, draughts must be avoided in order not to catch cold, and while the head is exposed, the body should be kept warm. A hard mattress is far better to sleep upon than a soft one, and the feather bed should not find a place in any home. While the sleeping room should be freely exposed to the outside air, the dressing or bath room should, if possible, be comfortably warm, in order that the exposed surface of the skin may not be chilled.

CLOTHING

The need of clothing is so well known that only reference will be made to the relative value of the various articles used for this purpose. The material commonly employed in the manufacture of clothing consists of linen, cotton, wool, silk and fur. Both cotton and linen are good conductors of heat, i. e., the warmth of the body passes quickly through these fabrics to the outer world. Therefore in cold weather they do not offer the protection extended by wool and silk, which are poor conductors of heat. Neither cotton nor linen are as "hygroscopic" as wool and silk, i. e., they do not absorb water and give it off as slowly, but quickly lose it by evaporation. A very familiar example of this is when cotton or linen underclothing becomes wet from perspiration in the summer, evaporation takes place so rapidly that the body becomes quite cold, whereas if wool is used, the chilling takes place more slowly. Silk has to a lesser extent the properties of wool just referred to, and it may be used as a substitute if its added expense is not prohibitive. Furs need only be considered as an outside garment for extremely cold weather, and as a common article of clothing in sections of the world where the temperature is almost always very low, its value being due to its impermeability to cold weather and winds.

Air is also a poor conductor of heat and cold, and for this reason, loosely woven fabrics which contain air in their meshes are warmer than those which are closely woven. Two or three layers of clothing are warmer than one of equal thickness, because the air which is a bad conductor is between the various layers. This will also explain why a number of sheets of newspapers wrapped about the body is a very valuable protection against the cold, and may be used in emergencies for this purpose.

The subject of clothing must not be dismissed without reference to the dangers which follow the continued use of garments which improperly constrict various parts of the body. If those who are addicted to tight lacing could see the misplaced and distorted internal organs which are revealed by the X-ray, and which are the result of this habit, there would undoubtedly be some reformation in this direction.

While the means above referred to are generally regarded as the most important details in the preservation of individual health, there are many other ways by which a person through proper habits can contribute to his well being. Fortunately, these various measures are neither difficult nor unpleasant to carry out and are applicable to any walk of life. Therefore, the preservation of health is largely in our own hands.

Digitized by Google

Building a Battleship by Telephone

SOME months ago, we printed an account of how Lieutenant Commander Tardy, of the Brooklyn Navy Yard, directed the building of the superdreadnought "New York" by telephone from his home, while quarantined on account of diphtheria in his family.

The efficiency of this method of directing the work could receive no stronger proof than is afforded by his adopting the same plan while he is again quarantined at home owing to sickness.

The *New York Times* of May 22 printed a news item on the subject from which we quote the following:

His brother officers denied yesterday that Lieut. Commander Tardy's being in quarantine would interfere with work on the New York. He is directing the installation of the boiler and steam fixtures and the piping by telephone, and so fine is the organization he has developed, according to his fellow-officers, that the work will proceed with scarcely a hitch.

It often requires some extreme emergency to disclose the possibilities of one single little Bell telephone. Over one instrument in his room, Lieutenant Commander Tardy is giving directions and receiving reports about the construction and equipment of one of the greatest battleships ever designed, while probably until the necessity forced it upon him, he had imagined the work would be at a standstill unless he were in his office, surrounded by maps, blue prints, papers, clerks, paraphernalia, and all the organization of one of Uncle Sam's greatest navy yards.

And yet it is not necessary to have to build a battleship to find out how valuable a telephone is!

No Gas---No Dinner

THE above heading introduced an item which appeared in the *New York Sun* on May 18, decribing how the families in Edgewater, Cliffside and Fairview, New Jersey, who depend upon gas for cooking, were obliged to provide their Sunday dinners ready-made because of the blowing up of a gas main by a dynamite blast.

The newspaper notice casually remarks that families were waked up and told to close their gas jets, to prevent explosions or asphyxiations, but did not tell how the information was given. The facts are as follows:

At about 9:30 P. M. on May 17, Mr. Joiner, Night Superintendent of the Public Service Corporation for the Hudson County District, called the Evening Manager of Jersey City and stated that there was a gas main broken in Cliffside and requested that we notify all subscribers who could be reached by telephone that the break had occurred, at the same time requesting them to refrain from lighting the gas from that time on and also to be particularly careful to turn off all burners upon retiring. He also stated that the break affected consumers in Edgewater, Morsemere and part of Cliffside.

The Traffic Department, therefore, started to notify subscribers. The calling at the Cliffside office was started at 9:45 P. M. and finished at 12:50 A. M. Three hundred and seventy-five calls for subscriber stations were made, 149 of which resulted in don't answers.

In Leonia the Traffic Department started to call at 9:55 P. M. and finished at 12:10 A. M. Three hundred and sixty-three calls for subscriber stations were made, 49 of which resulted in don't answers.

There was very little difficulty experienced in communicating the necessary information to the subscribers, there being but three cases where subscribers required a further detailed explanation which was furnished by the Evening Manager.

How the citizens fared who had no telephones, and consequently could not be notified, we have been unable to ascertain.

The "Berkshire"

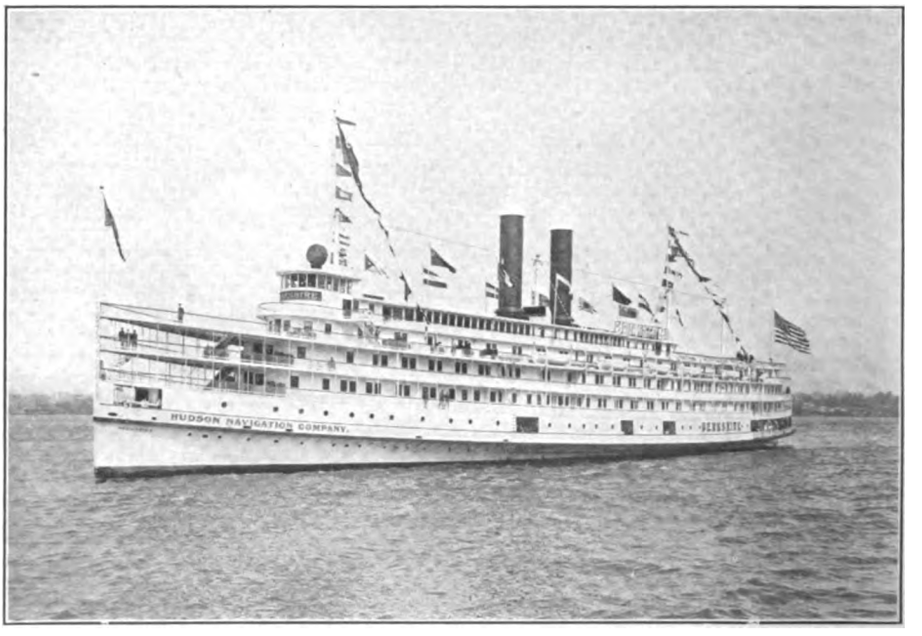
THE palatial new steamer "Berkshire" of the Hudson Navigation Company's fleet, plying between New York and Albany and described as the largest and finest boat on the Hudson River, went into commission during the latter part of May. This steamer represents the height of development in modern appliances and conveniences of every sort and has complete telephone equipment.

A special type one-position switchboard located about amidships on the main deck is used to connect the 418 extension stations that have been installed. Each of the 404 staterooms has a telephone, and others are to be found in the pilot house, engine room, dining salons, purser's office, steward's room, galley, ladies' tea room, ladies' writing room, parcel room, freight clerk's office, and in many other places where its conveniences are essential.

When at dock in New York, the switchboard on the "Berkshire" is considered as a sub-switchboard of the Private Branch Exchange of the Hudson Navigation Company. Two tie lines are connected through the main switchboard affording exchange service to the Spring Central Office. At Albany a two-trunk connection is established direct to the Central Office by a jack and plug and flexible cable. While the steamer is under way the switchboard is operated as a private intercommunicating system.

A modern steamer is similar in many respects to a large hotel. The "Berkshire" has all the luxuries and appointments of a hotel, but in addition her telephone equipment is unique as it renders constant intercommunicating and exchange service at both New York and Albany.

The traveling public increases in numbers every year, and demands and



STEAMER "BERKSHIRE" FULLY EQUIPPED TELEPHONICALLY.

Digitized by Google

expects the very best provisions for its comfort, convenience and safety. Telephone service such as is provided on the "Berkshire" assures more comfort, convenience and safety than ever before found on any boat. The complete equipping of this steamer with adequate telephone facilities should pave the way for similar installations on other boats.

Ourselves As Others See Us

FOLLOWING the recent "cut-over" and reception at Hackensack, N. J., a letter of appreciation was received from Mr. E. W. Schabilon, a prominent subscriber in that city, telling of the impressions and ideas he brought away from the public reception given at the Hackensack office on April 26. The letter is well worth quoting from as it illustrates the feeling which unfailing attention and courtesy inspire among outsiders. Mr. Schabilon says in part:

The uniform courtesy extended the public by the gentlemen in charge of the opening and inspection was a subject of comment by many ladies and gentlemen. This unfailing desire to please is a fitting and proper exemplification of the courtesy of the entire Company, extending from the president to the linemen, and reflects the spirit of Theodore N. Vail. It is the spirit of telephony, and is worthy of emulation in every branch of social and business life.

The entire staff made the afternoon and evening of April 26, 1913, one long to be remembered by all who accepted the invitation of the Company to become familiar with this great branch of public service, so perfect in every minute detail.

The spirit of the hive works out well in the Hackensack office where proficiency and efficiency appear to be the watchwords of a capable and untiring corps of workers.

After giving his impressions on the construction and equipment of the new building, Mr. Schabilon has also a word to say concerning the "often unjustly abused telephone operator":

Patience and courtesy, coupled with skill and accuracy, are requisites in an operator, and two of these requisites are necessary on the part of the public in order to make a perfect telephone connection—courtesy to the operator and accuracy as to the name and number of the subscriber with whom conversation is desired. And it is well to remember that there is always a lady at the other end of the wire, and if it is rude and boorish to use unbecoming language to a lady on the street, how can it be defended just because the lady is not actually in sight but is compelled to listen to it at the switchboard?

Mr. Schabilon's conclusion shows his appreciation of the improvements which have brought the telephone industry to its present high state of development. He says:

Comparing the early and crude methods of a few short years ago with the modern and highly developed service of to-day is like traveling to Philadelphia by stage coach compared with the steam cars and swift engines of to-day.

Telephone Development in China

BUSINESS competition is very keen in China, and the Chinese are exceptionally close buyers. In the purchase of foreign machinery they are at somewhat of a disadvantage, however, having very little technical knowledge. The average Chinese customer usually does not see why, for instance, one telephone is not as good as another telephone. He cannot see why one telephone may cost $20 and another telephone may cost $10, and merely thinks any explanation is only a scheme to get him to pay more money. All he knows is that he wants a telephone. Many things which are self-evident to the foreigner seem to be quite beyond the comprehension of the average Chinese customer.

The present telephone development in China is not very large. The Western Electric Company, three years ago, installed two up-to-date No. 1 common battery switchboards in Peking. Each switchboard is at present equipped for 1,500 subscribers lines, with a capacity for 6,000. Recently the company has secured a contract for a common battery telephone exchange to be installed in Tientsin with a present equipment of 4,000 subscribers' lines and a capacity of 14,000 lines. Shanghai has a large telephone exchange but the switchboard is of the magneto calling lamp signal type. There is also a fairly modern switchboard in Hong Kong, of the magneto multiple type. Outside of these places, telephone exchanges in China are few and far between. Most of them consist of the standard European type 100-line magneto switchboards. Very few cities have a telephone exchange with as many as 500 subscribers, and the average telephone exchange in China has less than 200. Still, China is changing very rapidly, and as the Chinese are eminently practical people they are beginning to realize the importance of telephones, a circumstance promising a steadily increasing development.

The Western Electric Company has recently received an order from the Chinese Government for a complete telephone equipment for Tientsin, including switchboard, cable and subscribers' sets. The switchboard will have an ultimate capacity of 14,000 lines, equipped at present for 4,000 lines. The value of the order is over a quarter of a million dollars, and is the second large contract which has been placed for modern telephones in China. Both of these contracts were secured after the keenest kind of competition with foreign makers.—*Western Electric News.*

Associated Advertising Clubs of America

NO body of men realizes the usefulness of the telephone to a greater extent than the members of the advertising profession.

Not only do they use the telephone in every possible way in the conduct of their business, but they encourage others to do the same.

"Buying by Telephone" and "Selling by Telephone" have been the subject of some of their strongest advertisements, both in reading matter and pictures, because it is recognized to be a buying and selling agent of incomparable value.

The Associated Advertising Clubs of America held their Annual Convention in Baltimore June 9 to 13, and the telephone equipment provided in the Fifth Regiment Armory, in which their meetings were held, was designed to afford all the facilities that would be required to meet every demand that might arise.

A telephone was installed on the Speaker's desk and on the Band Master's stand (both of which were signaled by lamps instead of bells), in all the committee rooms and offices, and throughout the entire hall, both on the floor and in the corridors, so that the telephone system of the whole country might be easily accessible. The telephones in the hall and corridors were placed in sound proof booths, and pages were in daily attendance, whose duty it was to notify the delegates or any one attending the convention who was wanted at the telephone.

There were two separate switchboards, with expert attendants; one was known as the "convention private branch exchange," and the other, which was located near the main entrance, with a bank of booths nearby, was for the convenience of the public.

Universal Service

An interesting recognition and interpretation of Universal Service is noted in the following paragraph from the Commencement Announcement in the Amherst College *Bulletin* of April, 1913:

GENERAL PUBLIC ACCOMMODATIONS

Telephone pay stations for local and long distance calls will be provided. From these stations you can "call anyone, anywhere, any time." The more the Alumni avail themselves of this service, the readier the company will be to furnish as good accommodations in future years.

Digitized by Google

J. C. Lynch

J. C. LYNCH, for the past six years Division Superintendent of Traffic, New Jersey, has resigned to accept the position of General Superintendent of Traffic of the Bell Telephone Company of Pennsylvania and Associated Companies. He succeeds W. R. Driver, Jr., who has been made General Manager of the New England Telephone and Telegraph Co.

Mr. Lynch began his telephone career as a service inspector in Manhattan in 1896, and by rapid promotions through the grades of Assistant Traffic Manager and Traffic Manager, became Traffic Engineer of the New York Telephone Co. in 1901. This position he held until 1907, when he received the appointment as Division Superintendent of Traffic of the New York and New Jersey Telephone Co., New Jersey Division, retaining the office after consolidation with the New York Telephone Co.

In addition to the duties of his official position, Mr. Lynch devoted much of his time during 1909, 1910 and 1911 to the reorganization of the Traffic Departments of the Hudson, Central and Western Divisions, upon the acquisition of the Up-State territory by the New York Telephone Co.

The ability and personality of Mr. Lynch place him in the front rank of his profession.

G. H. Merrill

G. H. MERRILL has been appointed Division Superintendent of Traffic, New Jersey, succeeding J. C. Lynch.

Mr. Merrill first came to the company as an agent in the Contract Department of the old Metropolitan Telephone and Telegraph Co. on January 8, 1894, but on the following February 19, he was transferred to the Traffic Department as Service Inspector. On September 3 of the same year, his title was changed to Manager, and he was placed in charge of traffic inspection work. The organizing and developing of this most important branch of telephone administration have been largely due to Mr. Merrill, and are responsible in no small measure for the high efficiency of the service in the Manhattan-Bronx Division, over which he has had control.

He continued to hold this position until May 19, 1913, the date of his transfer to New Jersey.

For the past three years Mr. Merrill has been a member of the Traffic Rules Committee of the New York Telephone Co., and since December, 1911, has also been a member of the A. T. & T. Co. Committee on Standardization of Local Operating Methods.

Organization Changes

Accounting Department

P. O. Coffin, Auditor, located at 15 Dey St., New York City, reporting to the General Auditor.

Reporting to the auditor:

J. A. Kennedy, Auditor of Disbursements, 15 Dey St., New York City, in charge of General Accounting and Disbursement Work.

A. J. Norman, Auditor of Receipts, 15 Dey St., New York City, in charge of the Revenue Accounting Work.

Reporting to the Auditor of Receipts:

W. J. Creamer, Division Auditor of Receipts, 81 Willoughby St., Brooklyn, N. Y., in charge of the Revenue Accounting Work of Long Island and Lower Manhattan.

L. F. Halsted, Division Auditor of Receipts, 221 East 37th St., New York City, in charge of the Revenue Accounting Work in the central portion of Manhattan.

C. Y. Meighan, Division Auditor of Receipts, 2033 Fifth Ave., New York City, in charge of the Revenue Accounting Work of Upper Manhattan and Bronx and the Westchester Division.

H. J. Chegwidden, Division Auditor of Receipts, 281 Washington St., Newark, N. J., in charge of the Revenue Accounting Work in the New Jersey Division, including Staten Island.

A. W. Deas, Division Auditor of Receipts, 321 Montgomery St., Syracuse, N. Y., in charge of the Revenue Accounting Work in the Up-State Divisions.

Reporting to Mr. A. W. Deas, Division Auditor of Receipts, Syracuse:

J. P. Hill, Revenue Supervisor, 25 South Pearl St., Albany N. Y., in charge of the Revenue Accounting Work in the Hudson Division.

L. A. Wilcox, Revenue Supervisor, 321 Montgomery St., Syracuse, N. Y., in charge of the Revenue Accounting Work in the Central Division.

H. W. Gaul, Revenue Supervisor, 44 Church St., Buffalo, N. Y., in charge of the Revenue Accounting Work in the Western Division.

Advertising Department

H. G. Stokes, appointed Supervisor of Copy, reporting to Advertising Manager.

Manhattan-Bronx Division

Traffic Department

A. D. Scovel appointed Manager of Traffic Inspection.

E. S. Haldane appointed Chief P. B. X. Inspector.

Commercial Department

J. A. Gollins appointed Local Agent, Orchard, reporting to Dey Street District Agent.

J. W. Jones appointed Local Agent, Melrose, reporting to Bronx District Agent.

P. E. Mahony appointed Local Agent, Tremont, reporting to Bronx District Agent.

W. C. Asman, Supervisor, transferred to Dey Street Local Office.

E. F. Webb, Supervisor, transferred to Harlem Local Office.

F. C. Kurz appointed Supervisor, Plaza Local Office.

G. C. Tompkins appointed Asst. Division Chief Clerk.

F. W. Tinkey will report to the Division Office.

Westchester Division

Commercial Department

A new Commercial Office has been opened at Haverstraw, N. Y., to care for the collection and contract work for the Haverstraw and new Stony Point central office districts. J. S. Gates is the Agent-in-Charge, reporting to A. S. Rossborough, Local Agent at Nyack.

Long Island Division

Commercial Department

On May 26 a Local Commercial Office was established at 1030 Gates Avenue, Brooklyn. This new office will serve the

Digitized by Google

territory covered by the Bushwick Central Office District and will be in charge of O. A. Keenan, Local Agent, reporting to J. F. O'Hea, District Agent, Williamsburg.

A Local Commercial Office has been established on Main Street, Bay Shore, to handle the general commercial work for the following Exchange Districts:

Babylon, Lindenhurst, Bay Shore, Islip, Brentwood, Central Islip.

W. H. Hambley is "Agent in Charge," reporting to Mr. Lightbody, Local Agent at Patchogue.

C. G. James, formerly handling Western Union matters in this Division and reporting to the Division Commercial Manager, has been transferred to the office of the General Commercial Engineer, 15 Dey Street, New York.

J. W. Teske, Local Agent, Far Rockaway, transferred to 81 Willoughby Street, Brooklyn, and title changed to Special Agent. Mr. Teske will handle Western Union matters and report to the Division Commercial Manager.

B. B. Andrews, Local Agent, Jamaica, will also have charge of the Far Rockaway Local Office as Local Agent in addition to his present duties as Local Agent, Jamaica.

New Jersey Division

Traffic Department

J. C. Lynch, Division Supt. of Traffic, New Jersey, resigned to accept the position of General Superintendent of Traffic, the Bell Telephone Company of Pennsylvania.

G. H. Merrill, Manager of Traffic Inspection, Manhattan-Bronx Division, appointed Division Superintendent of Traffic, New Jersey.

A. E. Barrett appointed Chief Clerk, N. J. Division, to succeed A. H. Green, transferred to Manhattan-Bronx Division.

Plant Department

J. H. McKenna, formerly Splicer, Construction Department, appointed Splicing Foreman, Construction Department.

F. E. Shafer, formerly Supervising Splicing Foreman, Construction Department, appointed Chief Foreman of Cable Splicing, Construction Department.

Central Division

Plant Department

W. E. Lewis, Wire Chief, Warren Central Office, Syracuse, transferred to the Metropolitan Division.

G. W. Gentry, Wire Chief, James Central Office, Syracuse, transferred to Warren Central Office, Syracuse, as Wire Chief.

A. C. Van Etten, Central Office Inspector, transferred to James Central Office, Syracuse, as Wire Chief.

B. F. Stalker, Installation Foreman, Syracuse, appointed General Foreman, Syracuse.

D. J. O'Brien, Installer, Syracuse, appointed Installation Foreman, reporting to General Foreman, Syracuse.

A. S. Crofut, appointed Wire Chief at Jordan.

F. C. Simmons, formerly Wire Chief at Jordan, transferred to the Alexandria Bay Telephone Company.

E. R. Burr, Deskman, Auburn, appointed Wire Chief, Geneva Central Office.

Griswold Cooper, Wire Chief at Geneva, appointed Wire Chief, Interlaken.

H. B. Risley, Combinationman at Baldwinsville Central Office, transferred to Little Falls as Wire Chief, succeeding Clinton B. Smith, who is assigned to other duties.

Owing to the transfer of St. Lawrence County from the Central Division to the Mountain Home Telephone Company, the General Foreman's office at Watertown was abolished as of April 1. Mr. Guy Cleveland, General Foreman, has been transferred to Utica, reporting to Chief Foreman of Aerial Construction.

Traffic Department

Miss E. J. McGraw appointed Chief Operator at Seneca Falls, vice Miss Mabel Brady, resigned.

Miss Ethel Potter appointed Evening Chief Operator at Norwich.

Western Division

Plant Department

R. L. Cross, Chief Clerk to Division Equipment Superintendent, transferred to Division Plant Office, as Correspondence Clerk.

H. C. Kline, Wire Chief at Batavia, transferred to Buffalo, as Chief Clerk to Division Equipment Superintendent.

Clyde A. Day, Wire Chief, East Aurora, transferred to Batavia as Wire Chief.

L. H. Owen appointed Wire Chief at East Aurora.

Commercial Department

C. F. Rees, Sub-License Agent, Buffalo, appointed Local Manager, Lockport, reporting to District Manager, Buffalo.

J. E. Jennings, Local Manager, Lockport, transferred to Warsaw as Local Manager, reporting to District Manager, Rochester.

L. E. Budd, Local Manager, Warsaw, assigned to Special Work.

"Stony Point" Exchange

ON May 1 a new exchange known as "Stony Point" was opened which serves subscribers in Stony Point, Tompkins Cove, Jones Point, Iona Island, Highland Lake and surrounding territory. This makes the seventh exchange established in Rockland County, and the cost of reconstructing and erecting new lines and adding increased facilities is over $20,000.

The first public telephone station in the Stony Point area was installed in the paint store of Daniel Keesler, 25 years ago, and afterwards changed to the drug store of Dr. John Sengstacken. The line at that time ran by the way of Grassy Point, crossing the inlet just north of Grassy Point, at the drawbridge known as "Pennybridge," by means of a five-pair submarine cable. This method of service had to be abandoned, however, as it was a source of constant trouble from vessels dragging their anchors which would carry away the cable.

A pole line was built from West Haverstraw to Stony Point on the Stony Point road about 20 years ago, and it was by this route that this area was then served. The Haverstraw Water Company, E. O. Rose, Dr. John Sengstacken and A. M. Wiles, are the oldest subscribers.—A. S. Rossborough, Local Agent, Nyack.

Telephone Service Here and Abroad

Mr. Vail's combination in restraint of trade, as the United States prosecutor alleges, asserts that it is operating 500,000 telephones in this city and is advertising for more. Governments never advertise to increase business, because it is no advantage to managers of public utilities to increase business. Their support is by taxes, and it is easier for incompetents to get a vote of taxes than to increase their efficiency.

How remarkable is the efficiency of this combination in restraint of trade appears from the fact that New York, the smaller city at present, has a half million telephones against 235,000 for London. Berlin has 210,000 and Paris has 92,000. Roughly speaking, the efficiency of the respective Governments is the measure of the efficiency of the telephone systems they operate, and nothing could be surer than that New York City would not have a half million telephones if they gave no better service than is given under the foreign systems. There was a distinct deterioration in the British service when taken over from the private owners, and the German system was crippled when the needs of the budget shortened the telephone credits. The French system is so far below comparison with the American that nothing need be said about it.

Nothing is more interesting as an example of the difference between public and private efficiency than the history of the telephone development. Germany is the leading example of Governmental efficiency and ranks next to the United States, which is the leading example of the private telephone. The United States has seven times as many stations as Germany, and 15,649,000 miles of wire against Germany's 2,733,700. There are nineteen billion telephone conversations in the world each year, and the United States contributes 13,229,900,000. With but 5 per cent. of the world's population, the United States possesses 69 per cent. of the world's telephones and 65 per cent. of the telephone mileage.

This disparity does not exist in the case of the mails, which are on a uniform basis of public ownership. Leaving out the uncivilized countries and confining the comparison to the nations most nearly comparable with the United States, that is Europe, the development of Europe is one-twelfth that of the United States. Yet Mr. Vail is not altogether sure that he will not have to go to jail as a conspirator in restraint of the telephone trade.—N. Y. *Times* (Editorial), May 27, 1913.

Digitized by Google

Partial Summary of Outside Development Work, Planned or Under Way

Manhattan Switchboards

APPROXIMATELY $570,000 has been appropriated within the past month or two for additions to the Beekman switchboard in downtown Manhattan and the Plaza, Lenox, Schuyler, Morningside and Harlem switchboards in uptown Manhattan.

These additions will provide a total increase of equipment for 14,200 subscriber lines and will care for the estimated growth in the districts served from these switchboards during the next two or three years after completion.

Astoria, L. I.

SINCE the completion of the Queensboro Bridge and the Sunnyside Yards, a considerable amount of manufacturing development has taken place in the southwestern part of Astoria, and with the construction of a new rapid transit route, which will traverse this section of New York City, greater activity is expected in building construction for both manufacturing and residential purposes.

Common battery telephone service was established in Astoria about two years ago and about that time, as mentioned in *The* TELEPHONE REVIEW, large additions were made to the outside plant to care for new business. The number of telephones has increased so rapidly—about fifty per cent. during the past two years—that further additions will be required in a short time, and in order to meet this need, plans have been approved under a recent estimate for constructing about .7 miles of subway and placing more than seven miles of feeder and distributing cables.

An appropriation of about $28,000 has been authorized for this work.

Newtown, L. I.

FROM time to time mention has been made in *The* TELEPHONE REVIEW of the construction of additional outside plant in the Newtown District in order to care for growth in new development sections. During the past two years the net increase in the number of telephones in this district was more than 55 per cent. and with the improvement in transit facilities which are under way, or to be undertaken in the near future, it is expected that increased building activity will take place, with a resulting larger growth of telephones. About $56,000 has been recently appropriated by the Executive Committee to provide for the construction of nearly three miles of subway and five miles of 300 and 600-pair underground feeder cable. This work will relieve existing cables which do not contain sufficient spare conductors to care for the expected growth of more than a few months and will provide permanent feeder facilities for parts of the Corona, Winfield and Woodside sections of the district where marked building activity is expected.

Lindenhurst, L. I.

TELEPHONE service in Lindenhurst is at present provided from the central office at Babylon, about three miles distant. Owing to this distance the costs of providing plant facilities and maintaining the service have been very high and as a result the telephone development has been light.

In order to develop this district fully and to care for the growth in telephones which it seems reasonable to expect within the next few years, it has been decided to establish a new central office in Lindenhurst and install a switchboard and cable plant.

Provision has been made under a recent appropriation for the necessary pole and cable work and upon completion there will be adequate plant facilities to care promptly for new business in the developed sections of the town.

It is estimated that the number of telephones in the new district will be nearly trebled within the next three or four years.

Hasbrouck Heights, N. J.

HASBROUCK HEIGHTS is to be provided with a complete cable plant throughout the developed sections of the town, under a recent appropriation of about $12,000 authorized by the Executive Committee.

There has been a steady development of residence buildings during the past few years with a consequent increase in the number of telephones in service, and it has been necessary to place a large number of aerial wires to care for new business in the sections not reached by the present cables.

Under the proposed work cables will displace most of these wires and in addition to providing plant facilities to care for the growth which is expected during the next few years, the appearance of the plant will be greatly improved.

Irvington, N. J.

DURING the period between 1900 and 1910 the population of the Town of Irvington, located in Essex County, New Jersey, increased about one hundred and twenty-five per cent., and with the rapid development of residential buildings which is taking place, it is estimated that this very high rate of growth is being maintained. Telephone service in Irvington is provided from the Waverly switchboard and during the past few years underground feeder plant has been extended into the central part of the town and distributing cables placed on a number of the streets where the development warranted. The active building construction has extended into sections not reached by these cables and in order to care for the large growth of telephones which seems assured during the next few years, plans have been approved for placing between eight and nine miles of feeder and distributing cables.

As the work progresses and the subscribers' stations are connected directly into the new cables, a very large number of aerial wires will be cut dead and removed, causing a marked improvement in the appearance of the aerial plant and decreasing to a minimum the possibility of troubles or interruptions to the service.

An appropriation of about $38,000 has been authorized for the work, and upon its completion Irvington will be provided with an up-to-date and complete telephone plant throughout the developed portions of the town.

Orange, N. J.

ABOUT $20,000 has been authorized for further additions to the underground and aerial cable plant in Orange and West Orange. A large amount of outside plant work has been done in this district in the last year or two, as described in previous issues of *The* TELEPHONE REVIEW, and in general the outside plant contains adequate cable facilities to care for a large growth.

In the southern section of Orange, however, additional underground feeder cable is required to care for new business and about two miles of 300 and 600-pair cable are planned.

In the St. Cloud section of West

Digitized by Google

Orange high class residential development is fairly active and a steady growth in telephones is being secured; to provide adequate facilities for this section about two miles of aerial cable will be placed under the appropriation just authorized. This work will permit the removal of the aerial wires by which this section is now served and will thus practically eliminate such maintenance troubles as are attributable to the heavy trees wth which these wires have been involved. The improvement thus effected in the grade of service on present stations and in the facilities for handling new business will no doubt be greatly appreciated in this community.

Lestershire, N. Y.

LESTERSHIRE is a growing manufacturing town located on the main line of both the Erie and D. L. & W. Railroads and has a population of about 3,800. The village adjoins the city of Binghamton on the west and several important manufacturing plants are located there.

During the past year extensive additions have been made to the outside plant in the village. Under an approved estimate about 2.7 miles of aerial cable are being placed together with the necessary pole line work. This work will greatly improve the appearance of our plant throughout the village and provide for the removal of many objectionable runs of twisted pair wire.

It is also planned to install a new common battery switchboard to care for the growth in the district. The number of stations has increased threefold in the last three years, making a present development of about 5.7 telephones per 100 population.

The total cost of work now under way or planned for Lestershire will be about $15,000, and upon completion of the proposed work there will be ample facilities to care for a considerable growth in stations and the general appearance of the plant will be greatly improved.

Gedney Farms Hotel Telephone Equipment

AN exceptionally large private branch exchange contract, for Westchester County, has been secured by the White Plains office for the new Gedney Farms Hotel, which will be opened on September 1, 1913. The hotel is to be four stories in height, containing besides pool and billiard rooms, ball room, grill room and dining room, 163 bedrooms and 100 baths. A swimming pool will also be located within a short distance of this building and connected with it by a covered passage way. Opposite the main entrance a golf course has been laid out. The residence on this estate is to be remodeled as a club house, and another club house for the exclusive use of guests will be erected at Oakland Beach.

GEDNEY FARMS HOTEL, WHITE PLAINS, N. Y.

The telephone switchboard for the hotel will be a special one-position 300 line, lamp board with five central office lines and 150 extensions. This switchboard will have a capacity of fifteen central office trunk lines and 270 extensions. Four public telephone booths will be installed and the lights in these booths will be controlled by a relay operated from our switchboard. Both booths and switchboard will have a special finish to correspond with the woodwork in the room in which they are placed.

Adequate telephone facilities will also be provided in both club houses, and it is expected that they will be connected to the hotel by tie lines.

All outside connections on the premises will be placed underground. It is expected that a 50-pair feeder cable will be run to the hotel from the main trunk line on Mamaroneck Avenue. The cable facilities in the hotel will consist of two 150-pair switchboard cables running from the switchboard to basement where they will connect to feeder and house cable. The current necessary to operate the board will be supplied by means of fifteen conductors from the central office. Vertical cables will be placed at certain points in the building with terminals on the various floors.

An interesting feature of the construction of this hotel is the fact that it was formerly the concrete dairy stable owned by Howard Willets, which has been remodeled into the present elaborate and imposing building.

With the securing of a contract for private branch exchange service with the Burke Relief Foundation for approximately four lines and 75 extension stations, which was signed on May 28, there will be three subscribers within a distance of three-quarters of a mile on Marmaroneck Avenue, with an aggregate of eleven central office lines and 268 stations.

C. L. STOCKWELL,
Agent-in-Charge, White Plains.

A Helpful Magazine

THE TELEPHONE REVIEW has on many occasions come to my relief in trying emergencies; in fact, I have found it "an ever-present help in time of need." To illustrate:

Mr. Subscriber enters the Commercial Representative's sanctum sanctorum, his agitation plainly appearing in face and motion. He unbosoms himself wrathfully to the effect that we have failed to maintain his line in working order and requires an immediate resumption of service. "The voice with the smile" is brought into play, and Mr. Subscriber is asked to wait while we investigate.

At this juncture, fortune in the shape of *The* TELEPHONE REVIEW, containing a contribution concerning the local telephone plant and operating facilities with illustrations, comes to the rescue. While the telephonic investigation is proceeding, the subscriber is beguiled with the story of local interest, and it is noticeable that his interest has been awakened.

The scowl changes to a smile. By this time the Commercial Representative is in possession of such facts as can be presented to the subscriber.

In the specific case in hand, the cable had been mutilated through no fault of the Company, and upon presentation of the facts, the representative was tendered an apology and profusely thanked for his attention.

A short talk on our problems and aims, together with a visit to the Central Office, results in subsequent good feeling and the cementing of a personal friendship.—"LOCAL AGENT."

Digitized by Google

At the Call of the Bell

Suggested by H. Howland, Flatbush Commercial

I WOULD suggest as a name for the column of *The* TELEPHONE REVIEW which contains the news of the company the phrase, 'At the Call of the Bell,'" writes Mr. H. Howland of the Flatbush Commercial Office.

We are pleased to note that the writer refers to this page as "the news of the company," and hope that our many contributors will continue to send us newsy articles which will make it more and more worthy of this name.

Another Front Cover Coincidence

The cover of the June number of the *Western Electric News* represents the second of what seems to be a strange series of coincidences. The appearance of the "flood" cover on the April issue at the very time that floods and sleet storms were devastating the Middle West was one. The cover on the June issue is another. It illustrates the use of a Western Electric portable telephone in time of war. A temporary telephone line has been erected to the crest of a hill overlooking a battle field in the Balkan War and reports are being sent to headquarters by means of the portable hand set supplied with the telephone.

Fire at Hoosick Falls

At 2:40 o'clock one afternoon recently a fire in the rear of the Telephone Office, at Hoosick Falls, N. Y., was discovered by the Chief Operator who, smelling smoke, rushed to the window and discovered the cable pole, fence and several coils of insulated wire in flames. By the use of a garden hose it was extinguished without the assistance of the fire department.

There were twelve lines with fifteen stations working in the cable, all of which were put out of order. They were temporarily connected at 9:15 P. M. by means of bridle wires run from the cable terminal to the main frame.—(Miss) M. A. Hayes, Chief Operator, Hoosick Falls.

Buffalo Traffic Notes

At 6:00 one night during a severe storm a small steamer with about 200 employees of the Wickwire Steel Co., which is located several miles down the Niagara River, on board, left the Company's dock for Buffalo. About 6:30 the Wickwire's watchman heard the steamer blowing distress signals and telephoned to the residence of Mr. Allen, the Superintendent of the Company, that the steamer was sinking. Mr. Allen was out of town, and Mrs. Allen received the message. She immediately called and explained the case to her operator, who connected her with the Central Desk.

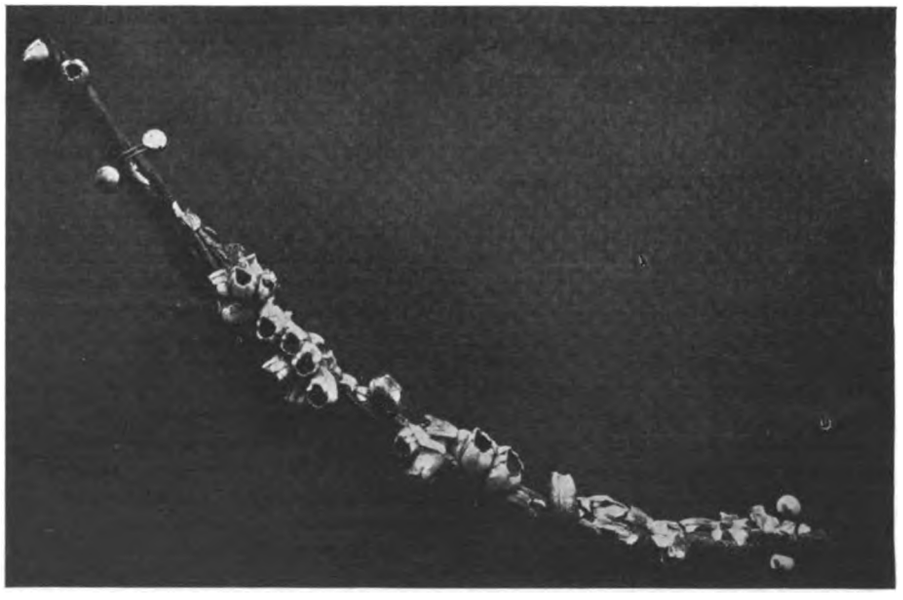
The Central Desk, taking charge of the situation, called the life-saving station, but was advised that it would be impossible to venture down the river in a small boat. Several tugboat offices were then appealed to, but, unfortunately, as lake navigation was closed, a tug was not available. The Grand Island ferry house was called next, and the keeper signalled the ferry-boat which was tied up on the Canadian side of the river. The boat answered and at about 7 o'clock had crossed the river, and the Captain was informed that the Wickwire boat was in trouble. He steamed down the river and found the steamer not sinking but aground; the engine had broken down. The ferry-boat drew too much water to get close enough to render any help but located a tug on the Canadian side and sent her to the steamer's assistance which in the meantime worked off and was being carried down the river with the current. She was overtaken by the tug and towed to Buffalo.

The Central Desk kept in close touch with the ferry house, and when the keeper reported that the crippled steamer was safe, Mrs. Allen was notified at once and relieved of her anxiety.

A subscriber in the North central office, Buffalo, recently called the Traffic Chief and in a very excited voice requested him to turn on the alarm for the night. When asked if she meant a fire alarm, she replied that she wanted a burglar alarm connected on her telephone and was informed that we were unable to comply with her request. She then explained that she had just returned from a hospital in a very weak and nervous condition and found that burglars had visited her home during her absence; she feared their return, as all the street door locks were broken off. She was absolutely alone in the house and put her faith in the telephone, which was located in her room.

The Traffic Chief advised her that her line would be given special attention for the night and if anything unusual occurred to remove the receiver and call for help, and the police would be notified.

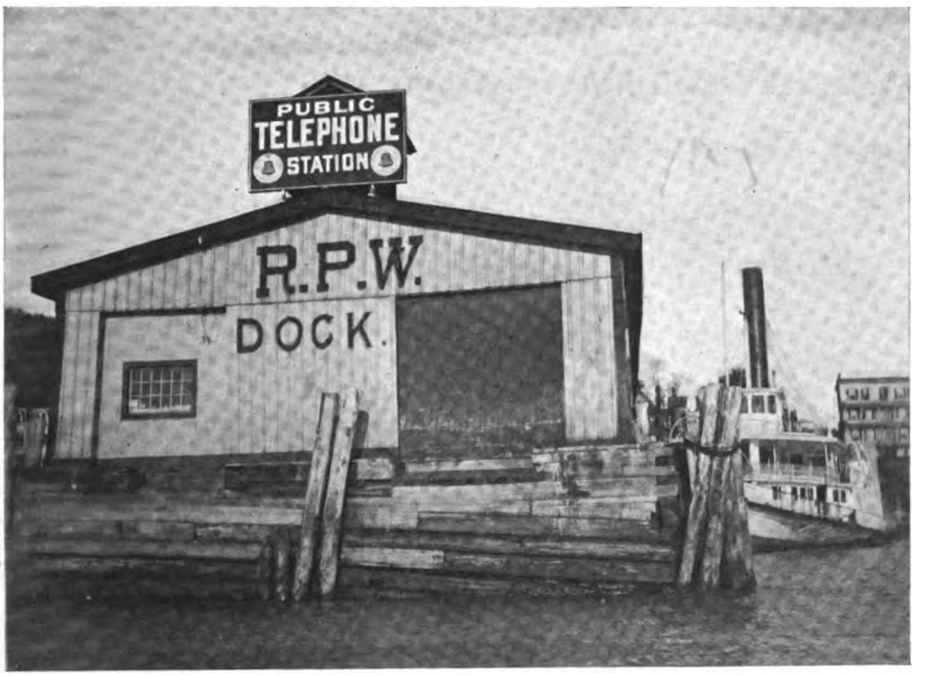
A very irate subscriber called the Central Desk one evening and said if we did not send a lineman to remove her pet cat who had been treed up one of our poles, she would report the Company to the S. P. C. A. She was advised that cats had the reputation of having nine lives, a lineman had but one, and it was not thought advisable to send a man up a pole at night.—F. L. JACKSON, Asst. Dist. Traf. Chief, Buffalo.



A CLUSTER OF CRUSTACEANS.

A piece of No. 14 Twisted Pair outside distributing wire removed recently from along the L. I. R. R. trestle which spans Jamaica Bay. This piece of wire has been under water possibly for years. Photo from E. Miles, Wire Chief.

Digitized by Google



PUBLIC TELEPHONE SIGN ON WATERFRONT AT HAVERSTRAW, N. Y.

Where Land and Water Meet

Another public telephone sign which is attracting much favorable comment and bringing in business is shown in the accompanying illustration. This sign is placed on the "Emeline" dock at Haverstraw, where it can be seen from all the craft passing up and down the Hudson. A coin box equipped with booth is located near where the passengers land from the steamer, which is shown in the picture.

A similar sign has just been placed at the ferry landing at Nyack.

A. S. ROSSBOROUGH,
Local Agent, Nyack.

Wire Chiefs Get Together

The Wire Chiefs of the exchanges in the Manhattan, Bronx, Long Island and New Jersey Divisions take a back seat to none when it comes to good fellowship. For the past four months they have been holding get-together dinners whenever a meeting of the Telephone Society was scheduled, and making the most of an opportunity to develop a spirit of co-operation and friendliness.

The plan originated with F. C. Condon, Wire Chief, Flatbush, and O. G. Hunsdon. At first, "talking shop" was strictly tabooed, but like all true telephone men they found it exceedingly difficult to enforce this rule.

These dinners have brought many face to face who had merely a "speaking" acquaintance with one another before.

High Water

We are indebted to R. C. Bailey. Troubleman, Hudson Falls, N. Y., for the accompanying picture which gives an excellent idea of how Fort Edward, N.Y., was affected by the floods in March. The picture was taken after the water had gone down about a foot. The X indicates the location of the telephone operating room, and the arrow shows the highest point reached by the water.

Interesting pictures connected with any phase of the telephone industry are always welcome, and we hope that many of our readers will follow Mr. Bailey's example.

In All Sincerity

A student of the Hudson Division School was observing one day while the other students were having practice. The monitor passed a call for "Mr. ———, brick dealer on Morton Avenue." The supervisor noticed her conversing with another student and in order to ascertain what she was talking about said, "Do you know that man, Miss ———?" The student replied in all sincerity, "Yes, I do. He's dead now."—(Miss) K. V. MULREY, Hudson Division School, Albany.

"Here I Am"

A student in passing a call to a "B" operator, failed to give her exchange name. In calling her attention to this, the Instructress said, "Where are you, Miss ———?" The student replied, "Here I am."—(Miss) L. A. WOOLEY, Hudson Division School, Albany.

How She Knew

Mrs. Commuter—But how do you know what kind of people the Browns are if you have never met them?

Mrs. Mutler—I have heard their phonograph selections.—*Puck.*

FORT EDWARD, N .Y.—HIGH WATER AT THE DOOR OF THE CENTRAL OFFICE, MARCH, 1913. Photo from R. C. Bailey, Troubleman, Hudson Falls, N. Y.

Digitized by Google

Going Up

A belated guest found his way into the Arcade Hotel, Watertown, N. Y., one night and following a series of maneuvers entered a telephone booth. After looking out several times inquiringly, he hailed the night clerk and said, "Shay, I wanna go to m' room. When in thunder y' going t' run thish elevator up?"—C. H. TOWNSEND, Local Manager, Watertown.

Change Arms

A Fort Edward, N. Y., subscriber called the Central Office some time ago and reported trouble with her telephone as follows: "I wish you would send some one down to look over my telephone. It has been acting quite badly for several days, till now it has got so that when I talk over it, it makes my arm ache. I didn't think so much about it until one of my neighbors said it affected her the same way."—R. C. BAILEY, Troubleman, Hudson Falls, N. Y.

Keansburg, N. J.

On May 1, a new agency magneto central office was opened in Keansburg, N. J. Six lines and twenty-eight stations, heretofore working in the Atlantic Highlands central office with Keansburg designations, were transferred to the new office where the present equipment consists of:

One position of standard magneto switchboard.

Eighty subscribers' drops and jacks, numbered 1 to 80 inclusive.

Twenty trunk drops and jacks, numbered 81 to 100 inclusive.

One ringing machine of standard interrupter type.

The Keansburg central office area includes the towns of Belford, Keansburg, Fort Monmouth, and the territory along the south side of the Raritan Bay.

Strange But True

The White Plains Commercial Office recently received a telegram for a subscriber whose telephone number is White Plains, 1295. Through an error the telegraph operator was connected with White Plains 1259, which is a United Cigar Store.

Strange to say, however, the subscriber happened to be in the cigar store and received the telegram there. He is wondering yet how we knew where to call him, as not even his wife knew where he was.—C. S. STOCKWELL, Agent-in-Charge, White Plains.

Lemons for the Battery

At the formal opening of the new Hackensack building, refreshments consisting of cherry punch, lemonade and biscuits were provided for visitors. Suitable receptacles containing portions of lemons and a lemon squeezer ready for use were placed in the basement immediately outside the door of the vault where the battery cells are located.

A visitor after having listened attentively to explanations of the battery cells by one of the Plant Department inquired, "Do you use many lemons for the battery?"

To *tel-e-phun-e* story without a telephone; *it can't be done!*—J. CLARKE, Real Estate Dept., Newark, N. J.

SO FAR AWAY AND YET SO NEAR.
"Hello! Yes, I am *Owl* right!"
Sketch which accompanied the Advertising Contest suggestion of Miss Ada Martin, Commercial Dept., Ossining, N. Y.

Wire Chiefs in Hudson Division Hold Dinner

A dinner was given by the Wire Chiefs' force of the Hudson Division in Albany on the evening of May 3. When the idea of giving the dinner was suggested it met with such favor by all Departments that there were present 160, including many of the Division Officials.

A special menu was prepared, being a fac-simile of "Special Trouble Ticket, Form No. 726."

The Blue Bell Orchestra furnished music and there was much singing and a general good time. Several interesting short talks were made in addition to the speakers who had prepared papers.

The Wire Chiefs were complimented on the success of the effort and future dinners are looked forward to with much pleasure.

Albany Traffic Anecdotes

A student operator in Albany Main after giving two reports to a subscriber on a call which she had passed over a circuit asked the distant "B" operator to ring according to routine. In response the circuit operator at Albany West (this is the only keyless office in our Division) said, "Keyless." The calling "A" operator did not at once grasp the meaning of this word and again repeated her request to ring, receiving the same response. The student operator promptly referred the matter to her supervisor saying that the "B" operator at West when requested to ring, replied "*Can* it."

An operator having received a call for a number which she had passed over a calling circuit, had taken up the trunk assigned. Another operator plugged in on the busy trunk, and the first operator immediately said, "Central you are on a busy trunk," to which the subscriber promptly replied, "Oh, no Central, I am on a chair."

An elderly lady, unable to find the telephone number of an iceman whom she wished to call, appealed to the information operator for help. Information asked for the name, and the subscriber replied, "Why I don't know, Central." The operator then named several ice dealers, but none of them seemed to be the right one. Finally, the old lady said brightly, "I'll tell you, Central. The boy on the wagon wears glasses."

A Supervisor recently reported that she had a subscriber who instead of calling for Main 281 party "J" always insisted upon calling for "Main 281 Social J."

After trying for some time to get a line that had been repeatedly busy a subscriber finally said to the operator, "Oh, dear, it's those two lovers. I'll be glad when that job is done."

A subscriber wanted to know the name and address for a certain number. When the information operator supplied the information the subscriber inquired quite seriously, "Married or single." The operator told him that our records did not indicate this information.

On being asked for "1920," an operator asked, according to routine, "What central, please?" to which the party calling replied, "The New York Central."—R. S. WILLIAMS, District Traffic Chief, Albany.

Digitized by Google

"Secure the Shadow Ere the Substance Perish; A Friend When Lost is Valued Most."
TRAFFIC EVENING MANAGERS AND MEMBERS OF NIGHT PLANT FORCE, MANHATTAN-BRONX DIVISION, CROTONA PARK, MAY 2.
Photo by James J. Gibbons, Night W. C. Force, Harlem Exchange.

Plant and Traffic Men Become Acquainted

ON May 2, the Traffic Evening Managers and members of the Night Plant Force of the Manhattan and Bronx Division met for a social gathering on the playgrounds in Crotona Park, The Bronx. Its object, which was successfully attained, was to bring into personal contact many who had merely a "speaking" acquaintance and thereby foster a spirit of friendliness and good fellowship among these co-workers.

Employees who once worked together but have been transferred to different districts met on this occasion for the first time in years, although in many instances they are in communication every day or night over the telephone. In some cases the men had not seen each other for ten or twelve years. There was many a pleasant chat over old times.

After courtesies had been exchanged, war was declared, and in an interesting and hard fought ball game the Plant team defeated its Traffic rivals by a score of 9 to 8.

The Bell Telephone Athletic Association of New Jersey

THE Bell Telephone Athletic Association of New Jersey held a most successful entertainment and smoker in connection with its regular monthly meeting on May 8 in Newark. About 300 members were present.

The program, which lasted three hours, made it necessary to dispense with the regular order of business, and consisted of selections by the newly organized Association Glee Club, a banjo solo, monologue and clever story telling, selections by a double string quartette, two wrestling bouts and other highly pleasing features. After the entertainment a lunch was served.

Mr. J. C. Lynch, former Division Superintendent of Traffic, and Mr. H. G. Kerr, Division Commercial Manager, spoke in glowing terms of the new organization, and predicted a bright future for it. Enough "shop" was mixed into their remarks to accentuate the fact that such an organization is necessary in order to bring all departments together and achieve the best results in a telephone sense.

The present endeavors of the association have been to perfect a good baseball team; one that can meet all comers semi-professionally. The team has played four games thus far, losing but one, which was hard fought. Of late, so many teams are desirous of "walloping" our nine that many games have been arranged. Such is fame!

The opening game was noteworthy in that the ceremonies were conducted along the lines followed out by the major leagues, with the customary march across the field, flag-raising to the strains of "The Star Spangled Banner," presence of newspaper photographers, and the throwing of the first ball by the president of the Association.

The next meeting will be held on June 19, at Iroquois Hall, Washington Street, Newark, and is being looked forward to with much anticipation as the committee have announced that the entertainment features will even surpass the program at the last meeting. It is hoped that many who did not avail themselves of the opportunity of attending on May 8 will be present. Those who are interested in this organization, but not yet members may find it worth while to come and enjoy a social evening.

Bowling

ALTHOUGH the bowling season is practically over, good work has been accomplished by the telephone men as a windup to the Metropolitan Bowling League Tournament.

On March 7, a picked team from the League composed of L. Reynolds, F. Reynolds, Asman, Chatfield and Girtanner defeated a Western Electric team in a three-game match by a score of 2,837 to 2,644 and again on March 17 by a score of 2,572 to 2,530.

The same team representing Manhattan was victorious over a Long Island aggregation on March 15, the score being 2,560 to 2,548.

An individual championship tournament was held in Brooklyn, April 7-28, and good work was accomplished by F. Reynolds who finished seventh and won a watch fob for high individual score in one of the games.

Digitized by Google

Two five men and a two man team represented the Telephone Company at the Fraternal and Closed Leagues championship tourney in Brooklyn on May 13. L. Reynolds, F. Reynolds, Chatfield, Murphy and Girtanner secured fifth place in the five men event, and the first two named were eighth among the two men teams.

The creditable work of the telephone men in this branch of athletics is to be commended, and we hope to see it repeated.

Baseball

THE following are the results of recent games played in the New York Telephone Athletic Club Baseball League:

May 10. Engineers 9, Brooklyn Plant 1; Plant Construction 10, Plant Accounting 2; N. Y. Installers 15, N. Y. Night Force 14.

May 17. Plant Construction 7, Engineers 3; N. Y. Inspectors 3, N. Y. Installers 1.

May 24. N. Y. Inspectors 11, Engineers 7.

STANDING OF THE CLUBS

Club	*Won*	*Lost*	*Per cent.*
Plant Construction...	3	0	1000
N. Y. Inspectors.....	3	0	1000
N. Y. Engineers.....	2	2	.500
N. Y. Installers.....	1	1	.500
Brooklyn Plant.....	0	2	.000
Plant Accounting....	0	2	.000
N. Y. Night Force....	0	2	.000
Bldgs. and Supplies..	0	0	.000

Games have been arranged between a picked team from the league and an aggregation representing the General Electric Company, one to be played in July and another in August. The telephone team will also cross bats with the Edison Company and the Westinghouse Machine Company during the season.

New York Telephone Athletic Club Annual Outing

MEMORIES of the Long Island Clam Bake still linger with those who attended that most auspicious occasion on June 10, 1911. There have been many inquiries since then as to when another outing of this kind would take place.

Patient waiters are no losers, however, and the New York Telephone Athletic Club now announces that it will hold its annual outing at Witzel's Grove, College Point, L. I., on Saturday afternoon, September 6. Although this date is nearly three months off, the committee, of which J. C. Axtmann is chairman, evidently considers it a good plan to give those intending to go plenty of time to whet their appetites.

The time and place of leaving of the boat will be announced later. Besides a ball game there will be several other athletic events for the ladies as well as the gentlemen.

Tickets including fare, dinner and refreshments are $2.00 each to members of the club.

Athletic Club Dances

THE Bell Athletic Club is the name of a newly formed organization in Poughkeepsie. Its members, of course, are all employees of the New York Telephone Co. The club has rooms in the Ryder Building on Market Street, where it meets every Thursday evening. The officers are: R. Burton, president; P. W. Oldfield, vice-president, and D. Hervey, secretary and treasurer.

The club gave its first dance in the Masonic Temple on April 24, and it was so successful that another was given on June 4.

Courtesy

COURTESY—"which oft is sooner found in lowly sheds" is an act of civility and respect, costing nothing to bestow on either young or old, and is the embodiment of refinement and good breeding.

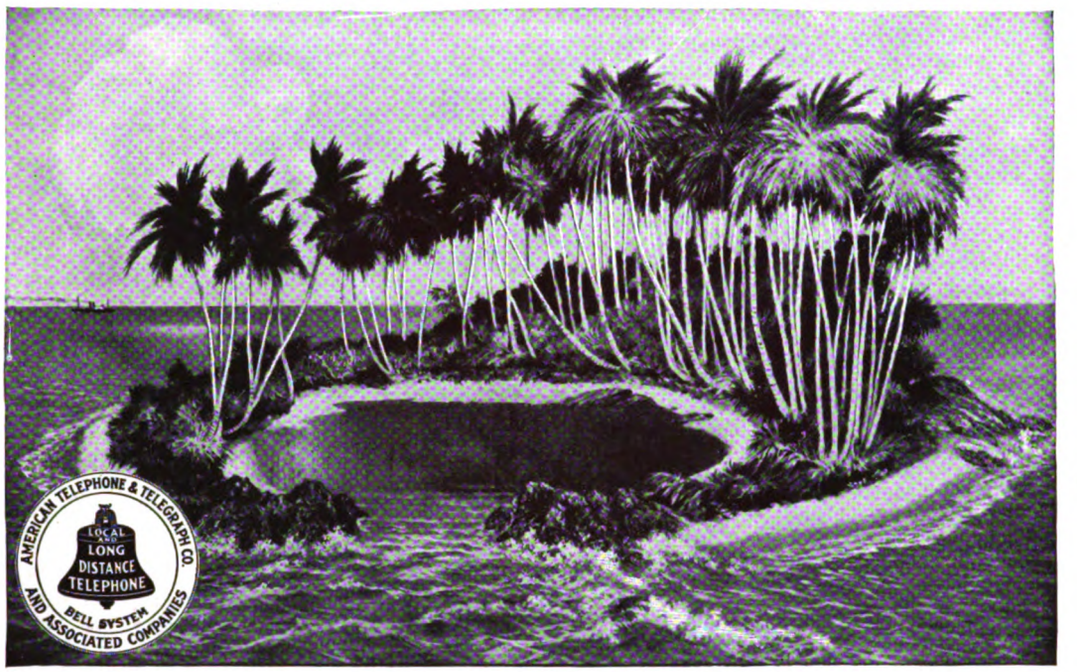
In the daily association with our fellow workers, we are apt to neglect many little courtesies which might be shown, not through ignorance nor lack of breeding but from a growing carelessness on the part of each to the other, thus placing a barrier upon the friendly feeling which would otherwise exist.

Persistent courtesy will often evade rebuff and command attention, whereas a hasty retort would only fan the flames of what might be considered righteous indignation.

But enough said—to be courteous means but to be kind.—(Miss) ADA F. WALLACE, Williamsburg Commercial.

AUTO FURNITURE VAN PUTS A TELEPHONE POLE OUT OF SERVICE ON ROAD NEAR WALDEN, N. Y. Photo from L. W. Sheldon, General Foreman, Plant Dept., Nyack.

Digitized by Google



Coral Builders and the Bell System

In the depths of tropical seas the coral polyps are at work. They are nourished by the ocean, and they grow and multiply because they cannot help it.

Finally a coral island emerges from the ocean. It collects sand and seeds, until it becomes a fit home for birds, beasts and men.

In the same way the telephone system has grown, gradually at first, but steadily and irresistibly. It could not stop growing. To stop would mean disaster.

The Bell System, starting with a few scattered exchanges, was carried forward by an increasing public demand.

Each new connection disclosed a need for other new connections, and millions of dollars had to be poured into the business to provide the 7,500,000 telephones now connected.

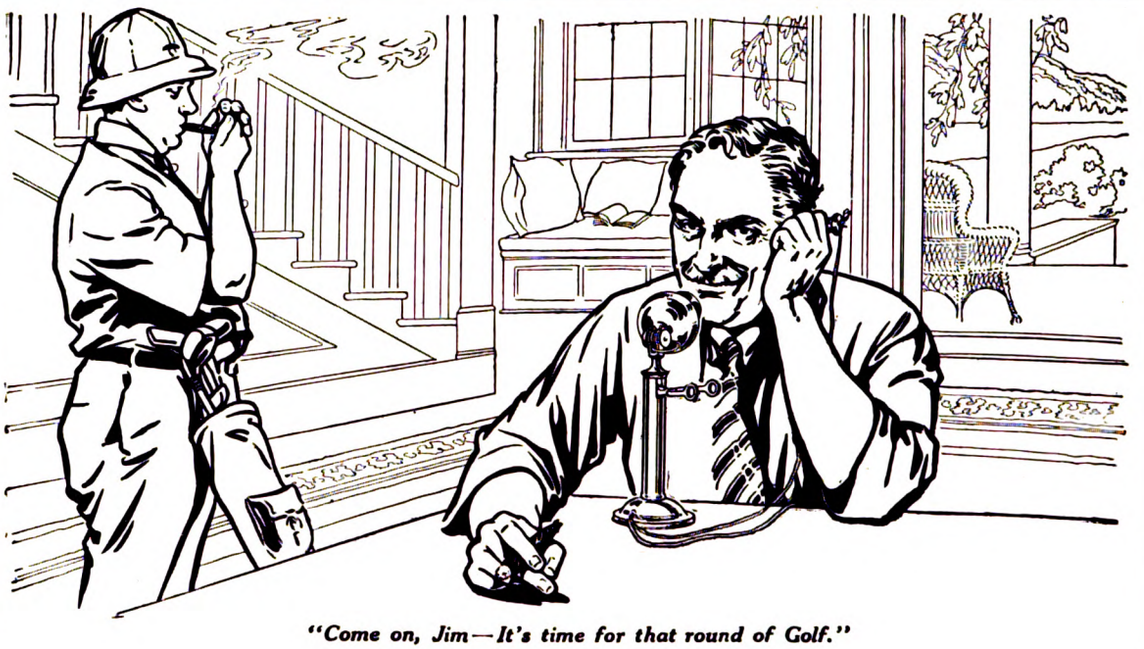
And the end is not yet, for the growth of the Bell System is still irresistible, because the needs of the people will not be satisfied except by universal communication. The system is large because the country is large.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google



"Come on, Jim—It's time for that round of Golf."

Arrange for Your Summer Telephone Early

YOU will want a ***telephone*** in your summer home to help make the vacation brighter and more delightful for yourself and your family.

The convenience of being able to send ***any kind*** of a ***message*** at ***any time*** to your friends and business associates, whether they are nearby or at a distance, makes the ***telephone*** an important contributor to your vacation pleasure.

Why not arrange for ***your*** telephone ***now*** so you can begin to enjoy it AS SOON AS YOU OPEN YOUR SUMMER HOME?

Just telephone or write to our Commercial Office nearest your summer home or the Commercial Office where you usually take up telephone matters.

NEW YORK TELEPHONE COMPANY

Digitized by Google

THE TELEPHONE REVIEW

Vol. 4, No. 7 July, 1913

"HER VOICE ALLURING DRAWS HIM ON."

Digitized by Google

"Service to any place at any time"

You Can Depend on Bell Telephone Toll Service

BELL TELEPHONE TOLL LINES are the important links that bind the many telephone exchanges into the one vast Universal Bell System. They bridge great distances and overcome the isolation that "local service" alone could not prevent. They are the all-important lines that make Bell Telephone subscribers neighbors, whether they live in the city or in the country, within a few blocks of each other or hundreds of miles apart.

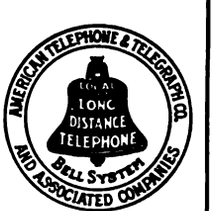
Every effort is made, therefore, to make Bell Telephone Toll Service **dependable** because when storm or disaster blocks the railways, when mail is delayed and transportation stopped, **then** the need of Telephone Toll "service to any place at any time" is felt most keenly.

Our Toll lines are built in a most substantial manner to withstand bad weather and storms. They run as straight as possible from point to point through the sparsely settled sections and avoid the busy streets of the cities where there would be likelihood of interruption to service by reason of the city's activities. Every possible safeguard is provided to secure an uninterrupted service.

The best constructed lines, however, are sometimes forced to give way to severe storms, blizzards or floods. At such times, service would be seriously handicapped were it not for our careful provision for spare apparatus and special workmen to meet just such emergencies. For instance, the unusually severe sleet storm in the Western part of New York State last January destroyed pole lines and equipment to the value of $125,000.00. Yet the damage was repaired in record-breaking time and the service restored with little inconvenience to telephone toll users.

You can depend on Bell Telephone Toll Service

NEW YORK TELEPHONE COMPANY



Digitized by Google

The TELEPHONE REVIEW

VOLUME IV NEW YORK, JULY, 1913. NUMBER 7

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the

NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
R. M. FERRIS, Chief Engineer
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOCH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to J. D. Newman, Editor.

VOL. IV. JULY, 1913. No. 7

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

Telephone Rate Reduction

THE reduction in telephone rates made effective yesterday is a reminder how blessed we are that the telephone is a private enterprise in this country. Rates and profits are so related that there is an inducement to improve the service, whereas in Government utilities customers get the treatment which is customary on the part of officials toward their inferiors. In the same week that we are experiencing betterment of the service, along with a reduction of rates, the cable tells us that many telephone instruments are useless in Dresden for weeks at a time. The Government's reply to complaints is to threaten to abandon the service altogether for a year if it is not better appreciated. In London the Postmaster-General has just received a letter, one among many, declaring that the telephone service has seriously deteriorated since the Post Office assumed the administration, and that its performance is so bad that it is a mockery. In England 14 in 1,000 use the telephone, and it is a wonder that under the conditions there are so many. In the United States 81 in 1,000 are telephone users. A Frenchman compares the French and American telephone services to the disadvantage of his own country. In France there are 232,743 telephones and in the United States 7,596,000. That works out at one telephone for each dozen Americans and one for each 171 Frenchmen.

There is nothing peculiar about the telephone in this respect. There is the same comparison between private and public railway service. Neither is there any explanation in the difference of national characteristics. Public and private utilities owned in the United States show the same superiority for those enterprises where effort and reward are related over those where they are separated. The explanation is not a peculiarity of inadequacy of governments so much as a universal quality of human nature. Human inperfection is the obstacle to perfection of governments, and those who expect and promise most from the operations of government contribute least to the excellence of government.

* * * * *

(Editorial from N. Y. *Times*, July 7, 1913.)

A Reminder

HOW would you like to receive 13,616,023 picture postals? Of course, you wouldn't!

So have compassion on the mail room and don't send any to your associates at the office while you are on your vacation.

Gettysburg

THE story of the reunion of the veterans of the Blue and Gray on the battlefield at Gettysburg, commemorating the Fiftieth Anniversary of that memorable conflict, properly belongs to our contemporary, *The Telephone News* of Philadelphia.

Nothing like the reunion has ever been seen, and from the ashes of the dead past have sprung new and lasting friendships and a closer bond cementing the two sections that were at strife.

Telephone facilites were provided at convenient locations, so that old soldiers wherever they might be located on the grounds, could telephone over the Bell System to their homes, and also receive messages intended for them.

If this means of communication had existed before the war, we dare say Gettysburg would never have been fought.

The telephone has wired the country so closely together there can no longer be sectional lines. We are all on good "speaking terms" now.

Write Us Direct

"THE TELEPHONE REVIEW just received, and a little article in it about forwarding contributions gave me courage to send this at once."

The foregoing is from a letter which we received immediately after the distribution of our June issue.

For the benefit of others who have not done likewise, we reprint the article referred to:—

Write to Us Direct

We are often surprised to find that even yet there are employees of the company who do not fully understand that contributions for *The* TELEPHONE REVIEW are expected to be sent direct to the editor, and that it is not necessary to send them through their immediate superior or division headquarters. Of course, any one desiring to submit a contribution to some one else for criticism, may select his immediate superior as well as any other employee of the company, but there is no other reason why it should be done. Contributions desired to be confidential will be so regarded by the editor, if requested.

There are no special correspondents for our magazine, although it has often been suggested that we should adopt this method to obtain articles.

Why should we limit the number when every employee has the right to be a correspondent? Certainly 25,000, if we should ever be fortunate enough to have all employees become contributors, would give a wider variety of material than a few dozen.

Make your personality known by sending in an article or an item.

"Preventing the Floods"

THE tragedy of the floods in the Middle West described in our April issue, was immediately followed by private and governmental investigations to discover some method to solve the problem for all time.

The most eminent engineers and other experts have suggested means of controlling the enormous volume of moving water which is "a bad master, but a most valuable and efficient servant."

In *Cassier's Magazine* for June, Mr. Henry Harrison Suplee, the editor, has an article on "Preventing the Floods," in which he proposes that after the Panama Canal is completed, the equipment used in its construction be brought up to the Ohio Valley, and

Digitized by Google

utilized in a gigantic engineering project covering the entire area effected.

The operation of the scheme would revolve around a complete telephone system of communication that "would enable rising waters to be retained and released in such order as to provide almost uniform flow through the lower lying districts which would be otherwise over-flowed and injured."

This harnessing of the mighty floods and their conversion to the use of man, in which the telephone would be one of the principal factors, has received the endorsement of engineers of national prominence and is of great interest.

Clippings

WE wish to impress upon those whose duty it is to forward newspaper clippings to this office, the importance of their being forwarded promptly.

Very often newspapers appearing in the afternoon are not read until the following morning, and the clippings are not mailed until late that afternoon.

Sometimes clippings are retained until there are several to be sent at once.

All clippings should be sent the day the newspapers appear. It is a very simple matter to look through the newspapers in the afternoon and forward the clippings, without postponing it until the next day.

No written or printed matter should accompany the clippings, except the name and date of the paper. This includes, of course, the town in which the paper is published, which in every case should be spelled out in full, as also should the name of the paper. Clippings can then be sent under a 1c. stamp, whereas any additional written or printed matter makes it subject to first class mail rates.

The use of any blank forms or other memoranda containing additional written or printed matter should be discontinued.

The Telephone Ear

WHY do the majority of telephone users hold the receiver in the left hand? Writing in *McClure's* for June on "The Ways of the Left Hand," Edwin Tenney Brewster says:

"And yet, right-handed, right-footed, and right-eyed as we are, we are left-eared. We put the telephone to the ear on one side as naturally and unconsciously as we put gun or spyglass to the eye on the other."

Mr. Brewster then goes on to explain that we are left-brained. In other words, the human brain is divided into two hemispheres, the left being used for thinking, the right for muscular motion. It follows, therefore, according to Mr. Brewster, that we naturally place the telephone receiver on the thinking side of the head and of course find the left hand more convenient.

Probably the chief reason, however, is that it leaves the right hand free for writing, etc. Left-handed persons generally put the telephone to their right ear.

Ten Dollars and an Apple

IF there is anybody besides a telephone man who might be expected to regard all uses of the telephone as ordinary and commonplace, it is probably a newspaper man.

The editor of a Nyack newspaper, however, was startled out of his impassivity just by being present when a citizen called up a store by telephone and recovered a ten dollar bill which he had accidently dropped on the floor while paying for a purchase.

The falling of an apple on his head led Newton to the discovery of gravitation, and so a very ordinary use of the telephone, if properly considered, will disclose the wonderful advantages of Universal Bell telephone service.

Qualifications for Membership in the Telephone Pioneers of America

A PERSON to be eligible for membership in this association must have been engaged in the promotion of, or employed in the telephone business or its associated interests (excepting the Western Union Company, which has an association of its own), 21 years prior to the date of his application, and at any time thereafter continuously in said service for the period of five years. If in the service prior to 1891, then continuous service is not essential.

The Executive Committee is empowered to enroll any person who in its opinion shall have rendered service beneficial to the telephone interests prior to the year 1891.

Applicants for membership should apply by letter to the Secretary, 15 Dey Street, New York, giving the date as near as possible at which they first became connected or associated with the telephone industry as previously stated, and such other details connected with employment as possible.

The applicant's letter of application should be accompanied by five dollars covering first year's initiation fees and dues and a recent photograph. The application must be endorsed by two members of the Telephone Pioneers' association.

These applications are considered by the Membership Committee and recommended to the Executive Committee for approval and enrollment.

The dues after the first year are two dollars per annum. The membership now numbers about 1,100 members.

Upon the enrollment each applicant is furnished with the proceedings of the 1912 convention and an engraved certificate of membership signed by the President and the Secretary of the association.

Fire by Night

THE first information that a hotel proprietor in the village of Singac, New Jersey, had that two of his ice houses were burning was by telephone from another hotel proprietor in Little Falls, four miles away, who saw a red glare against the starless sky in the direction of his fellow Boniface's hostelry. The Little Falls man called up the man in Singac and asked: "Where is the fire?" A sleepy voice replied: "What fire?" This led to an investigation with the result that the ice houses were found burning and the volunteer fire companies in Singac and Little Falls were summoned by telephone. The hotel was saved.

Pictures Wanted

ONE feature of *The* TELEPHONE REVIEW that receives general commendation is the number of illustrations which appear in it.

There are times when we have more than others, and right here we would like to ask that whenever any of our fellow employees can take a picture of some interesting scene or event in connection with their work, that they will send us copies promptly with a full description.

A number of photographs have come into our possession that are anywhere from ten to twenty years old, but because no one took the trouble to put on them the date they were taken, some very interesting and valuable historical material is lost, unless it can be supplied almost by accident.

Digitized by Google

Advertising Contest

IN the Advertising Contest which closed June 15 the Committee has awarded the following prizes:

Prizes

First prize, $10, to F. L. Jackson, Assistant District Traffic Chief, Buffalo, for his suggestion "Through the Bell Telephone Gateway to Everywhere."

The Bell Telephone knows no barriers between you and your home, office, tradesman, summer place, nearest friend, or distant relative. All places are accessible through the Bell Telephone gateway.

Second prize, $5, to R. S. Sutliffe, Chief Clerk, Engineering Department, A. T. & T. Co., 15 Dey Street, for his suggestion of an illustration with appropriate text which would show the difference between what the public sees and the apparatus that is actually used in making a telephone call.

The public knows only the telephone set, which, however, is less than 10 per cent. of the plant equipment, seen and unseen, which has to be provided, and takes no account of the wonders performed.

Third prize, $3, to James Brackenridge, District Commercial Manager, The Bronx, for his suggestion "The Greater Liberty."

Picture a telephone as a statue on a pedestal, bringing out the idea that the telephone has "set free the imprisoned speech of the world, and made possible the greatest liberty of verbal communication."

Honorable Mention

Honorable Mention has been awarded by the Committee as follows:

S. S. Rigby, Plant Department, Mt. Vernon, N. Y., for his suggestion "Every Subscriber is a Lessee" of thousands and millions of dollars worth of property for a small consideration.

E. M. Clarke, Commercial Department, 15 Dey Street, for his suggestion of an illustration depicting a baseball field with a game in progress, and the crowd around a newspaper bulletin board where the game is reported by telephone.

The scorer receives by telephone the reports of all the important games in the different leagues, and in a few seconds the watchers know which have won and lost. This is a graphic illustration of how the telephone focuses and disseminates information.

As we are in the midst of the vacation season when so many employees are away and cannot participate in these contests, it has been decided to discontinue them for the present, and the Contest which closes July 15 will be the last until further notice.

Calling Up Bible Class

WE have printed accounts of how chambers of commerce, lodges and other organizations have increased the attendance of members at their meetings by calling them up over the telephone, and we now have a newspaper account of how the Witherspoon Bible Class of the First Presbyterian Church of Rahway, New Jersey, has built up the attendance of its members by the same means.

A list of the negligent ones was made up and at a special meeting, called for the purpose, a copy was given to each member present who pledged himself to call up as many as possible each Sunday morning for a season and urge them to attend the class.

It is surprising that more of this sort of thing is not done.

Get an Individual Line

THE *Watkins Review* says that it would be a nice thing to have two telephone systems—one for the use of people who have business to transact and the other for those who use telephones merely to visit and gossip. It says: "Nothing will exasperate a man more than to call up some other man with whom he has urgent business only to find that the line is tied up by a couple of women who think it is necessary to tell each other how tired they are after ironing, or what hard luck they had baking cake, or how they are expecting company and must get busy and clean up a bit, or a lot of other equally frivolous stuff."

The problem is a real one, but the remedy proposed is not the solution of it. Why not try an individual line which gives the exclusive use of the wire?

The Telephone Society of New York

Hudson Section

ABOUT 350 members were present at the annual meeting of the Hudson Section at the DeGraaf Building, Albany, on the evening of June 18. The report of the Secretary-Treasurer indicated that the Section was in a very flourishing condition. Mr. J. A. Jamison, Jr., the retiring Chairman, in his annual report gave an interesting review of the year's work.

Following the reports of the officers, Mr. J. P. Hill, Chairman of the Nominating Committee presented the report of this Committee. There were no other nominations and the following officers and Executive Committee for the ensuing year were elected:

Chairman, E. H. Powley, New York Telephone Co.

Sec.-Treas., F. R. Guardineer, New York Telephone Co.

Executive Committee: H. P. Miller, W. R. Adams, F. L. Arland, E. A. McDonough, G. C. Donnelly, C. Meyer, New York Telephone Co.; S. H. Riker, American Tel. & Tel. Co.; W. H. VanZandt, Western Union Tel. Co.; M. W. Hicks, Granville Tel. Co.

Mr. E. H. Powley, the newly elected Chairman, then took the chair and in a happily worded speech thanked the members for the honor conferred.

The meeting was in the nature of a "get together and smoker," a pleasant evening of sociability being spent by the members. The enjoyment of the occasion was added to greatly by the many popular selections rendered by the Blue Bell Orchestra and Glee Club.

Association Railway Telephone Superintendents

THE Thirty-Second Annual Convention of the Association of Railway Telegraph Superintendents was held at the Planters' Hotel, St. Louis, May 20 to 23, inclusive. It was one of the most interesting meetings that this association has ever held.

The papers, which are always a feature of these gatherings, were of the usual high order, and the entertainment committee seconded by the citizens of St. Louis, provided the members of the convention and their families with a round of pleasures which were not as fleeting as the hours spent upon them.

The officers elected for the ensuing year are: President, William Bennett, Supt. of Telegraph, C. & N. W. R. R.; First Vice-President, A. B. Taylor, Supt. of Telegraph, N. Y. C. & H. R. R. R.; Second Vice-President, W. C. Walstrum, Supt. of Telegraph, N. & W. R. R.; Secretary and Treasurer, P. W. Drew, Supt. of Telegraph, M. St. P. & S. S. M. E. C. Keenan, General Supt. of Telegraph of the N. Y. C. Lines, is Chairman of the Western Division, and W. H. Potter, Southern Railway, is Chairman of the Eastern Division.

The next meeting will be held in New Orleans, May 19 to 22, 1914.

Digitized by Google

Some Talk About Telephony in Spain

By K. Bretscher, of Bell Telephone Manufacturing Co., Antwerp

GOING to Spain and expecting to find well-developed telephone systems there is about the same thing as going to the United States to look for messengers riding on a mule from the farm to the town with the most urgent news. Spain with about 22 millions of inhabitants has now about 22 thousand telephone subscribers, thus leaving ample space for new ones.

However, a slight progress can be noted, especially in the northern part of the country, where the mountains diminish the effects of the heat and make the inhabitants more enterprising. Furthermore, this part of the country, near the Gulf of Vizcaya, is occupied by the remainder of a race entirely different in character from the real Spaniards. I mean the Basks, descendants of the Celts, who resisted in a few parts of Europe both the assaults of the Romans and later on the invasions by the Teutonic Race. A very strong spirit for national liberty prevails still in these Bask provinces, which extend between the Gulf of Vizcaya and the picturesque range of the Pyrenees and over the crest of the latter nearly down to the valley of the Ebro. The Basks are a very sympathetic race of people regarding personal character and honesty, as are all Spaniards in this respect.

In the largest city of this above-mentioned district in Spain, which is the foremost as far as agricultural and industrial development are concerned, the B. T. M. Co. installed its first C. B. plant—that is to say, in the fashionable bathing place of San Sebastina.

The writer happened to be in charge of the construction of the second C. B. plant in Spain, which was ordered by the Municipality of Pamplona, the capital of the province of Navarra.

As the description of an ordinary C. B. plant with only 300 lines would be of no interest to your readers, I am confining my write-up to the description of their old-fashioned system. However, I first wish to add some remarks regarding the town of Pamplona itself (which has 30,000 inhabitants) and the life in it. (Fig. 1.) As it is only 50 km. distant from the French border, it has always been considered as a strong military point. Its most important protection consists of a modern fortification on the top of the Mont San Cristobal overlooking the valley and the town with the northern entrances to that valley. But still, the old walls and trenches around the very favorably situated place are kept in good condition. The town lies on the edge of a wide plateau, falling steeply down to the river Arga which surrounds Pamplona on three sides (Fig. 2), and for this reason only one side had to be fortified. Three old gates with drawbridges, which ten years ago had still to be closed by order of the military department in Madrid, give the city a very romantic aspect. (Fig. 3.) Curiously enough, this strong place is partly an agricultural and cattle raising town, as I show you by Fig. 4, a herd of cattle being driven out of the town every morning, which return through the gates every night.

This town had an old telephone plant with some 170 subscribers. It cannot be considered as a good certificate for the quality of the system and the service that this number dropped down to 136. Under these circumstances, it was very hard for the B. T. M. Co. salesman to convince the city authorities that they wanted a C. B. switchboard and 300 subscriber lines. Most of the subscribers had to content themselves with an old Ader transmitter (Fig. 5), combined with an induction coil and battery bell. Only a few subscribers had the chance to possess a magneto set and to talk into a regular transmitter instead of against a board. The line plant was worth seeing. For instance, I once observed a pair of bare wires lying on a roof; one of them was covered by a half-cylinder tile in order to prevent it from touching its mate. A part of their open wire lines is shown in picture 3, but I regret that I was unable to photograph the cable plant. For crossing streets two or three cables with 10 or 15 rubber covered pairs were hung up in the air. A very interesting distributing device replaces the cable terminal box; a small wooden board is fastened in a dark archway, in the open air and visible to the public. Two rows of nails in this board represent the distributing frame and around these nails are slung all the terminating cable wires nicely twisted together. Also the central office was not very modern.

There were two types of switchboards in the same room, a very old one for 100 lines, similar to a telegraph plug switch, but too small now and out of commission. The second, which we might call the newer one, because its age did not yet reach 20 years is shown on Fig. 6. It took about a minute to establish one communication with it. Seeing a drop falling, the operator first took one of the double plug ended two-conductor cords to connect one of the two jacks of the calling subscriber to the jack of the operator's set—a handy micro-telephone! She did not wait a long while to take the latter in her hand, to press down the battery switch on it and to ask the waiting subscriber what he wanted, releasing every time the battery contact for listening, and therefore producing funny clicks in the subscriber's ear. Then she took a second cord similar to the first mentioned, put one plug of it in the second jack of the calling subscriber, adjacent to the first, and the second plug in the jack of the wanted party if she found his name on one of the name plates of the same position. If not, she started to put up a trunk connection by putting the second plug of the connecting cord in a trunk jack, multiplied on the second and third position. Then she walked down to that position, took a third cord and established the communication, walked back to the first position and rang over the cord connecting the operator's set to the first jack of the calling subscriber. To call a subscriber with a battery bell she pressed down a heavy Morse key; to ring a magneto apparatus, she turned a generator. Of course, she was ringing both the calling and the called-for party, but it did not matter as the former generally did not wait with the receiver on the ear. It must be admitted that the establishment of a connection did not require as much time as to write this down; however, the above-mentioned decrease in the number of subscribers may be easily understood now.

When instructing the operators with the new system I had a hard fight against the old operators' habits. They would not admit that it was easier to work with a modern common battery switchboard than with their old jack box until about two weeks after the cut-over. How the public appreciated the new system can be seen from the fact that three weeks after the cut-over, the number of subscribers reached 350 and that four weeks later the toll business of that town (private concern) doubled.

These results give good hope for the future.

Digitized by Google

FIG. 1.—PAMPLONA, SPAIN, A CITY OF 30,000 INHABITANTS. MONT SAN CRISTOBAL IN THE DISTANCE.

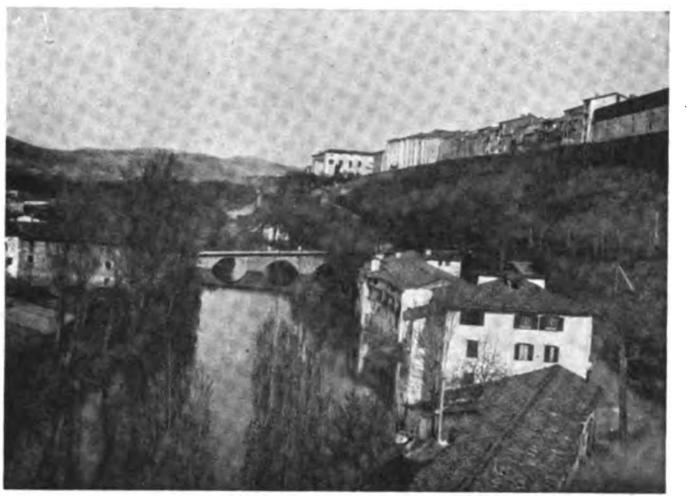


FIG. 2.—THE RIVER ARGA SURROUNDS PAMPLONA ON THREE SIDES, THE OTHER SIDE BEING FORTIFIED BY A WALL.

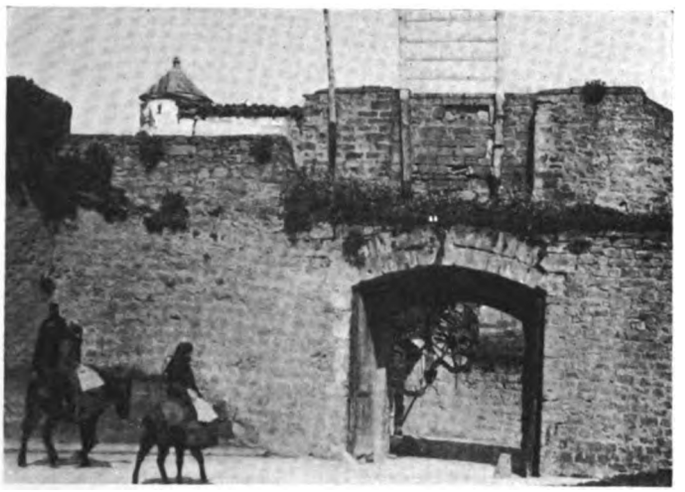


FIG. 3.—ONE OF THREE OLD GATES WITH DRAWBRIDGES WHICH GIVE THE CITY A VERY ROMANTIC ASPECT.

FIG. 4.—A HERD OF CATTLE BEING DRIVEN THROUGH ONE OF THE GATES IN THE MORNING TO GRAZE.

FIG. 5.—AN OLD ADER TRANSMITTER COMBINED WITH AN INDUCTION COIL AND BATTERY BELL.

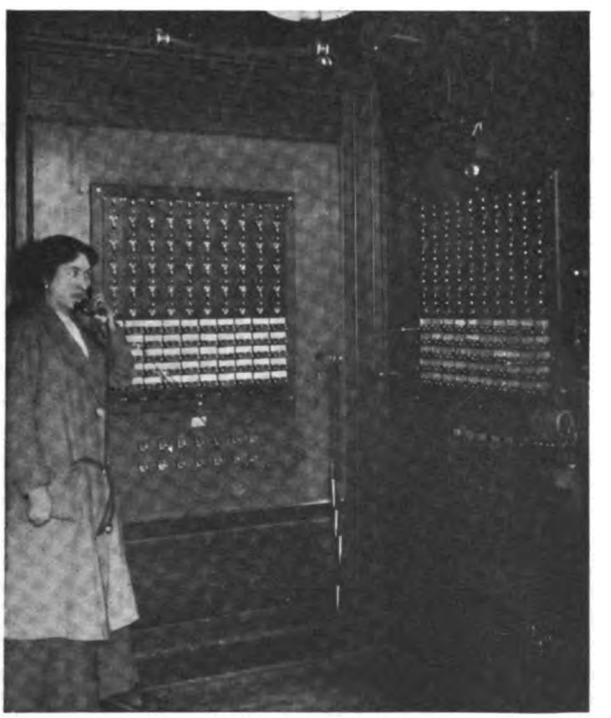


FIG. 6.—100-LINE SWITCHBOARD IN THE CENTRAL OFFICE AT PAMPLONA, RECENTLY SUPPLANTED BY MODERN WESTERN ELECTRIC SWITCHBOARD.

Digitized by Google

Jamaica

By B. B. Andrews, Local Commercial Manager

IN the year 1656, a group of English settlers of the old town of Hempstead, Long Island, obtained permission from the Governor and Council at New York to establish a plantation, which resulted in the founding of the Township of Jamaica. Of the twenty original families, ten are still prominently represented in the social, political and business life of the town.

Origin of "Jamaica"

The origin of the name "Jamaica" is interesting. It is said that the Indians called the place "Yemacah," although other records refer to it as "Jameco." The Dutch spoke of it as "Rusdorpe," meaning town or village. When settled by the English, many preferred the name of "Crawford," but "Jamaica" was finally selected.

Town Meetings

The first regular town meeting of which we have record was held on February 18, 1656, and a house-lot upon the north quarter of the town was granted to each inhabitant.

The early records of the town contain many quaint references to local conditions. We are told that at a town meeting in August, 1660, the inhabitants were divided into four squadrons to mow the meadows which were likewise divided into four parts. History also informs us that in this same year an allotment of lands was made to forty freeholders.

On March 6, 1662, it was voted to pay "a trooper's coat and a kettle to the Indians in full for the claims due them for land."

Additional land was purchased soon after, and it was ordered in town meeting on November 7, 1674, that "one trooper's coat, five guns, three blankets, sixteen coats, nine kettles, ten pounds of powder, ten bars of lead, one coat in liquors, thirty fathoms of wampum and a quart more liquor" be paid to the Indians.

The Redmen seem to have driven a hard bargain, and the high cost of living commenced earlier than we thought.

New Patent in 1686

On May 17, 1686, a new patent was issued to the town, and it was agreed that Jamaica should make no claim to Rockaway Neck. The Rockaway River was to be Jamaica's east bounds and the meadows on the west were to belong to it.

The Seat of Government

Jamaica's history shows that it was by no means an obscure town during the colonial days. In 1702, Governor Carnberry, later the Earl of Clarendon, in consequence of a plague in New York, moved with the Council to Jamaica where for a period of several years the seat of Colonial Government was located. As for the village of Jamaica, part of the Township, we find that it was made the seat of justice for the Northriding of Yorkshire at its organization in 1665.

The several counties of Long Island were established in 1683. The Surrogate's Court and County Clerk's office are still located in the heart of the village of Jamaica.

Religious Contention

The student of colonial history is well aware that religion was a great bone of contention in practically all of the original thirteen colonies. Jamaica furnishes a good illustration.

After the first meeting house had been built, about 1662, and a second one not long after, a controversy arose as to whether the property should belong to the Presbyterians, who were most numerous, or the Episcopalians, who generally had the backing of the Church of England Governor at New York and, therefore, were able to retain possession of the church property.

A long drawn out litigation finally restored it to the Presbyterians, in whose possession it has since been, and the First Presbyterian Church of Jamaica is generally considered to be the same in identity as the church organization established in 1662. On this contention this parish bases its claim to be the oldest continuous Presbyterian congregation in the United States, and the church held exercises in December, 1912, in celebration of its 250th anniversary—the organization of the society antedating about a year the building of the first church. There have been three such edifices, and the one in which the Presbyterians of Jamaica now worship dates from the year 1813.

The Reformed Dutch Church was first organized in Jamaica in 1702 by Dutch settlers from Kings County and the City of New York. Their first church edifice was erected in 1715 and was octagonal in shape.

General Nathaniel Woodhull

Coming to the Revolutionary period we find the name of General Nathaniel Woodhull, one of Jamaica's most famous men. Born in 1722, he was a descendant of Richard Woodhull whose name appears as one of the proprietors in the original deed of Jamaica. General Woodhull served during the war between Great Britain and France, enlisting about 1758. He took part in the assault on Ticonderoga and Crown Point and the campaign against Montreal.

COMMERCIAL OFFICE, N. Y. TELEPHONE CO., 8 HARDENBROOK AVENUE, JAMAICA.

Digitized by Google

EX-GOVERNOR KING'S HOMESTEAD, NOW SURROUNDED BY A BEAUTIFUL PUBLIC PARK.

HOLLIS HOTEL. SCENE OF THE CAPTURE OF GEN. WOODHULL IN 1776.

FIRST PRESBYTERIAN CHURCH, JAMAICA. THE OLDEST PRESBYTERIAN CHURCH IN THE UNITED STATES—ORGANIZED IN 1662.

HISTORIC GRACE EPISCOPAL CHURCH, JAMAICA.

HOLLIS PARK GARDENS.

JAMAICA ESTATES.

Digitized by Google

SUPERVISING FORCES OF THE JAMAICA CENTRAL OFFICE.

Standing—Left to Right: Misses Emily Otten, Evening Chief Operator; Bessie Williams, Chief Operator; Ella Beaufort, Day Supervisor.

Sitting—Left to Right: Misses Mae Batley, Evening Senior Operator; Jennie Williams, Night Chief Operator; Anna Wachter, Day Senior Operator.

Later, General Woodhull was a member of the Assembly of New York and a staunch supporter of the peoples' rights regarding taxation. In 1775 he was a delegate to the Continental Congress.

At the Battle of Long Island in 1776, General Woodhull was in command of the patriot militia, and, captured by the British, died as the result of an assault by a brutal British officer. He has been blamed for the defeat of the Americans in this historic encounter, but was not responsible as reinforcements failed to come to the aid of his small force. One of the historic points in this section is the old Hollis Hotel, where he was taken prisoner and which is over 200 years old.

JAMAICA CENTRAL OFFICE.

WIRE CHIEF'S DESK—JAMAICA.

The King Family

King Manor, standing in the midst of an ample and beautiful park in Jamaica, bears the historic names of Rufus King and his son John Alsop King, both notable in the annals of state and nation. Rufus was one of the greatest of the Federalist leaders, friend of Washington and Hamilton, Senator from New York State for several terms, Federalist candidate for Vice-President and Minister to England. John Alsop King was Governor of the State and prominent in other ways and his brother Charles was President of Columbia College. The remains of all repose beneath modest tombstones in the ancient graveyard of Grace Episcopal Church, to which they made many gifts. In recognition of the generosity of this family through four generations, the main apartment or auditorium of a new memorial parish house was recently named King Room.

Railroad History

Two of the principal features which tend to the development of a community are transportation and communication.

Jamaica was reorganized as a town by the State government in the year 1788, and so remained until swallowed up in the Greater New York consolidation which took place in 1897. The period which ended then was one of toll gate roads and bob-tail cars. Trolley cars were coming in, but instead of running under a minute and a half headway, as now, they ran about fifteen minutes apart. There was no rapid transit connection between Jamaica and points to the east and north and south, like Mineola, Hempstead, Flushing and the Rockaways, and

Digitized by Google

there were no electric trains such as now run over the Long Island Railroad to Flatbush Avenue station, not to mention the present eighteen minute service of that road to the great terminal in Manhattan.

It is interesting to note that the Long Island Railroad originally ran from South Ferry to Jamaica. We are told that the engines were named after prominent persons or well known objects, "Rocket" being an example.

At the village of Jamaica was the depot of the Brooklyn and Jamaica Railroad Company, which was incorporated in 1832 and leased to the Long Island Railroad in 1836.

First Telephone About 1886

Turning to more modern times, we learn that the first telephone in Jamaica was installed in the office of J. Tyler Watts, about 1886, and listed "Jamaica No. 1." It was probably operated from the only Brooklyn Exchange then in existence. Mr. Watts is still actively engaged in business, and his telephone number is now "Jamaica 1-J."

First Central Office

The first central office in Jamaica was located sixteen years ago in the rear of Mr. Watts' real estate office. The equipment consisted of a fifty-line magneto switchboard with twenty-three stations and four trunk lines to Brooklyn, and the business was handled by one operator. Inside of a year and a half the stations had increased to seventy-six. The steady increase of business required additional switchboard facilities, and in 1907 a 7-A and 3-B position switchboard with fourteen operators was installed. At this time the old magneto central office was abandoned, and the company moved into its own building at No. 8 Hardenbrook Avenue, where a common battery system was established. At the present time it renders service to about 3,000 stations in the Jamaica Exchange District and also maintains an Information Bureau for the Jamaica and Richmond Hill subscribers. This necessitates a force of thirty-four operators, including chief operators and supervisors. The Central Office at Richmond Hill renders service to about 3,500 subscribers with an operating force of thirty.

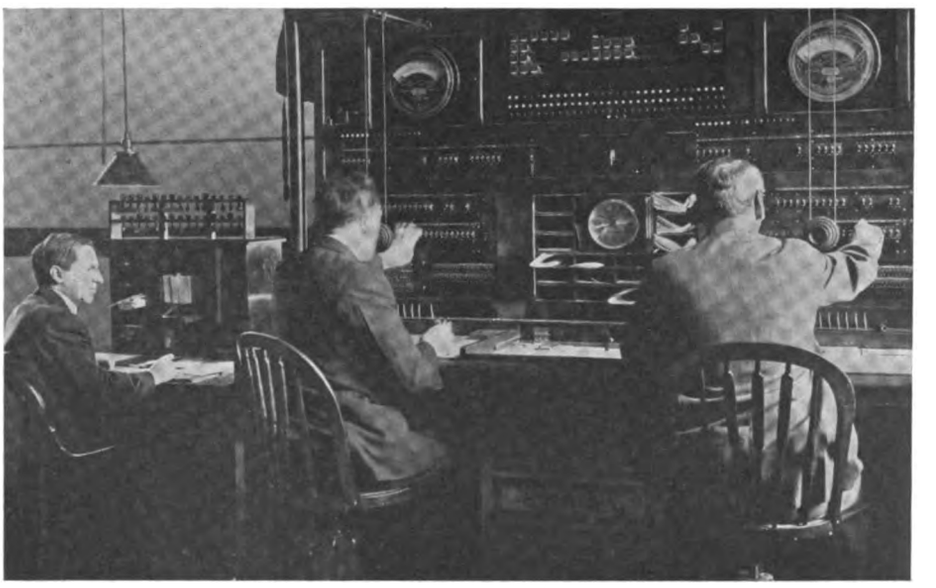
SUPERVISING FORCES OF THE RICHMOND HILL CENTRAL OFFICE.

Standing—Left to Right: Misses Susie Purdy, Day Senior Operator; May McCarren, Evening Senior Operator; Mamie Staudt, Evening Chief Operator; Agatha Buchan, Night Chief Operator.
Sitting—Left to Right: Misses Matilda Dayton, Chief Operator; Helen Wickman, Day Operator.

RICHMOND HILL CENTRAL OFFICE.

Residential Development

The territory served by the Jamaica and Richmond Hill offices was originally composed of separate communities, but they are rapidly becoming merged so that as one travels by railroad or trolley the nine miles from



WIRE CHIEF'S DESK—RICHMOND HILL.

Digitized by Google

Cypress Hills through Woodhaven, Richmond Hill, Jamaica, Hollis and Queens to the city line at Nassau County the populated sections are almost continuous. Except along the business streets, however, detached houses are still the rule. And there are many handsome residential streets and aspiring home developments like Jamaica Hillcrest, Jamaica Estates, Wyckoff Park, Hollis Park Gardens, Hollis Court, Bellaire Gardens, Queens Court and Queens Manor, many of which are most attractively laid out in park fashion and according to approved landscape ideas.

Jamaica Commercial Office

The Jamaica Commercial Office, also located at 8 Hardenbrook Avenue, until May 1, 1911, handled the business for Queens, Nassau and Suffolk Counties, with a local office at Patchogue and another at Flushing. Since then local offices have been established at different points on the Island to care for the increased business and facilitate public convenience in transactions with the Company.

"Telegrams by Telephone"

In September, 1912, a joint New York Telephone-Western Union Telegraph Office was opened which resulted in a steady growth in business, due to the central location and efficient service rendered. About sixty per cent. of the telegrams are delivered by telephone and the remainder by a messenger who makes prompt deliveries on a bicycle.

The area covered by the Jamaica Local Commercial Office is approximately thirty-five square miles and it is a section in which the growth is so rapid and changes in residences or places of business so frequent, that the task of meeting the manifold needs of the subscribers is not easy.

Four salesmen are employed in the field. A sales map of the entire section is maintained, and the progress of canvass is posted from time to time as each block is completed. The continued large increase in telephone stations is abundant evidence of the efficiency of these salesmen.

N. Y. TELEPHONE CO.'S BUILDING, 8 HARDENBROOK AVE., JAMAICA.

Securing New Subscribers

Telephone lectures illustrating the workings of the system and the many uses and conveniences of the service have been especially well received in this section and very fruitful of results in increasing the number of telephone subscribers.

It is interesting to note that recently through the installation of an emergency police booth in the Queens village section of this District the number of telephone subscribers was increased to a considerable extent. As soon as the residents learned that by simply calling up the police booth they could obtain police assistance in case of any danger or accident they began to see the point and take advantage of the additional police protection by installing the means of summoning it when needed.

April a Busy Month

The month of April this year was an unusually busy one for the installation force, owing to the Spring rush of business, and it is largely due to the personal interest of all employees concerned that the Company has been able to keep ahead of the work. This is substantiated by many letters on file from subscribers voicing their appreciation of the promptness with which their telephones were installed.

In addition to the usual rush of Spring business a five position switchboard has recently been installed in the new Jamaica Railroad Station, to care for the business of the Long Island Railroad Company's Offices in this building.

A large part of the work of caring for the increased growth throughout this section has fallen on the Cable Department.

Maintenance

The Jamaica and Richmond Hill Central Offices are cared for by one Wire Chief who is assisted by a desk man at each, with the usual force including troublemen, installers and helpers. The Wire Chief has supervision over light construction work, installing of telephones, building of new loops, reconcentrating work and repairs. Troublemen are provided with motor cycles which are necessary owing to the area to be covered.

Jamaica's Future

The territory embracing the old Township of Jamaica is destined to become the most important section of the County of Queens, if it is not al-

Digitized by Google

ready. It occupies the geographical centre of the County and Borough of Queens and is the territory through which the main transit lines run, while the establishment by the Long Island Railroad of a splendid depot and extensive passenger and freight yards in Jamaica has recently increased very much its importance as a railroad centre. We are informed on good authority that more passenger trains enter and leave the Jamaica station than in any other railroad centre in the United States.

In a short time no steam trains will run west of Jamaica and all the lines of the Long Island Railroad coming from the east will pass through Jamaica except those of the North Shore division. It is also the terminal of six important trolley lines, running east, west, north and south, and including the Brooklyn Rapid Transit system and the new Manhattan and Queens Company lines just opened which afford quick transit to upper Manhattan over the Queensborough Bridge.

A Period of Progress

With the remarkable improvements in other ways the telephone service has more than kept pace. This territory in 1800 had a population of 1,661, in 1890, or about the beginning of the trolley car and telephone period, of some 15,000, while it now has more than five times that population, or over 80,000. In other words it took over 200 years, with old fashioned facilities for transportation and communication for it to grow to 15,000, and in less than a quarter of a century since it has taken a spurt and multiplied in population five times. The number of telephone stations has grown from but one in 1886 to over 6,000 in 1913.

So much for the wonders of modern invention and their effect on the problems of living, which have enabled so many to come from the crowded sections of Manhattan and Brooklyn Boroughs to Queens, the garden borough of Greater New York, and enjoy freer life amid more rural surroundings, where they can at the same time have all the comforts and conveniences of the central portions of the city.

1656 and 1913

The conditions of the present, with the wonderful improvements of the present age installed in all their completeness, afford a striking contrast to those conditions which prevailed when the bold pioneers bought the land comprising the township afterwards formed, paying the Indians the fabulous sum which we have mentioned.

Telephone Growth

The table below gives the telephone growth in the Jamaica and Richmond Hill Exchanges from January 1, 1901, to January 1, 1913.

	Jamaica		Richmond Hill	
	Lines	Stations	Lines	Stations
January 1, 1901.....	125	191	52	86
January 1, 1905.....	278	453	224	356
January 1, 1907.....	553	974	585	900
January 1, 1910.....	1,058	1,666	1,197	1,568
January 1, 1913.....	1,650	2,804	2,276	3,299

One of the Pioneers

By Max Reid Bradt, Wire Chief, Schenectady

ONE of the earliest users of the telephone was the late W. Max Reid of Amsterdam, N. Y.

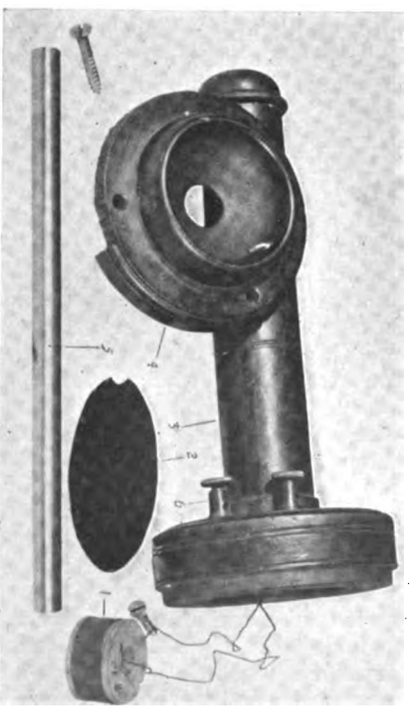
Mr. Reid was closely connected with the Montgomery County Historical Society and for some time prior to his death was its Historian.

The illustrations show the construction of telephone instruments which Mr. Reid, with the aid of a cabinet maker and tool maker, made in 1877.

The shells and ears cap were of wood, and the diaphragms were cut from tin type photographs. These telephones were used on a grounded circuit between Mr. Reid's office in Amsterdam and Broadalbin, a distance of about ten miles. The transmission was fairly good and conversations were carried on with ease. As there were no microphone transmitters at that time, the same apparatus was used both as transmitter and receiver.

There was no arrangement for signalling on this line, so at 10:00 A. M. and 3:00 P. M. each day Amsterdam and Broadalbin would get on the line and carry on conversation in connection with Mr. Reid's business.

THE INSTRUMENT READY FOR USE.



THE INSTRUMENT TAKEN APART.

Digitized by Google

FINISH OF A BOAT RACE.

How a Boat Race Was Handled

Telephone and Telegraph Facilities Provided at Poughkeepsie

By E. N. Bull, Local Manager

SIXTY thousand people witnessed the annual regatta of the Inter-Collegiate Rowing Association at Poughkeepsie on June 21; millions of less fortunate ones throughout the country knew the results almost as soon as the spectators, and from Boston to Seattle the newspapers of the following morning gave detailed accounts of the historic contest. That the news could be transmitted so promptly was due primarily to the special telephone and telegraph facilities provided.

The telephone's contribution was in the form of a private telephone line from the shore to the Judges' boat out in the river at the finish line. Early in the afternoon of the race, one instrument was installed upon the bank on the west side of the river near Highland, N. Y., to which was connected one end of a twisted pair of wires from a reel in a motor boat lying just off shore. Weights had been fastened to the wire previous to its being placed on the reel so as to carry it to the bottom of the river as it was paid out. The shore connection all arranged, the little boat lay at anchor until the Judges' boat out in the river had swung down stream with the turning of the tide. Anchor was then weighed and the improvised "cable ship" sailed for the Judges' boat, letting out the wire as it went. Upon its arrival at the Judges' boat, an instrument was carried up on board, connected with the "submarine cable" and communication with the shore thus established. This telephone line was subscribed for by the Associated Press, which had a telegraph instrument located near the shore end of the telephone wire and bridged to a telegraph circuit leased from the Western Union and leading direct to the Associated Press office in New York. The telegraph line ran all along the four-mile course from the starting point at Crum Elbow to the finish line a mile below the Poughkeepsie Bridge, with telegraph instruments cut in at every mile, and an experienced reporter and telegrapher stationed at every instrument. At the three-mile mark a loop ran to an instrument far up above the river at a wonderful vantage point in the middle of the span of the big bridge under which the contesting crews were to pass.

The United Press Association and the International News had similar circuits along the course, and the Western Union also provided nine circuits at the Highland tower, manned by rapid operators to receive the "story" of the race from the newspaper reporters on the observation train.

To see how these wires and instruments—the pulse of the regatta—did their work, let us view in imagination the big event of the day, the Varsity eight-oared race when Syracuse made rowing history by a signal victory over the Cornell veterans. The six crews are in position at the starting line, each straining to escape from the man in a rowboat who grasps the stern of the long shell. The Stewards' yacht lies just behind the crews ready to give the starting signal. The West Shore observation train of thirty-nine cars, loaded with excited spectators and newspaper men, is in readiness opposite the starting line. The telegraph operators are at their instruments.

The signal is given. Six watches click on board the Stewards' boat—there is a timer for each crew. The racing shells start; the Stewards' boat starts; the observation train starts; and the reporters at the telegraph wires start to write the "story" of the race—not with pencil and paper—but in dots and dashes which are heard instantly in New York City and relayed at once over other wires of the Press Associations to all parts of the country. The operators at the starting line begin the story; as the one-mile post is approached, the men there take up the description and so it is given in detail till the finish line is crossed.

Digitized by Google

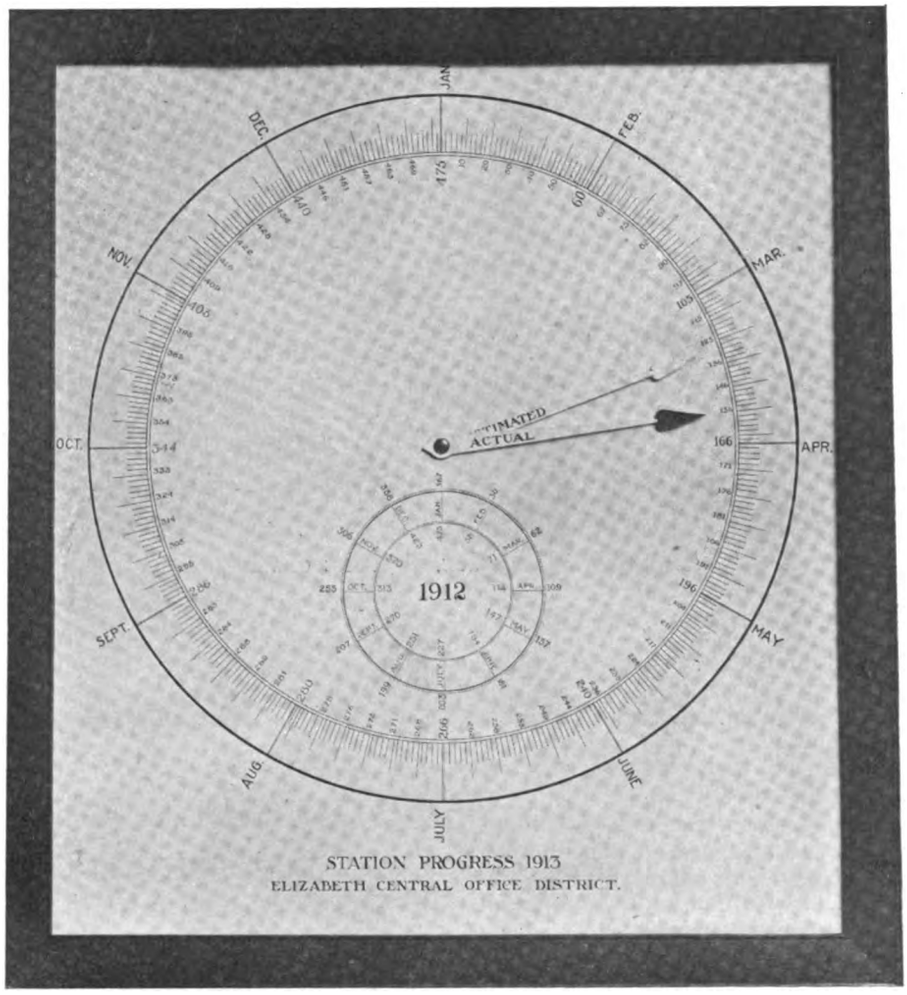
At the same time, reporters on board the train are writing accounts for their own papers; these hastily written notes are thrown off to messengers who rush them to the Western Union operators along the course to be promptly sent over the wires.

But that is not all. The official results and time must be had to make the story complete, and this can only be obtained from the Judges' boat at the finish line, several hundred feet out in the river. As the crews approach the finish line, a man with a flag stations himself in a position on the boat where he may be easily seen from the Stewards' yacht. The winning crew of Syracuse University crosses the line—down goes the flag on the Judges' boat and click! the watch of Timer No. 1 on the Stewards' yacht. Up goes the flag, Cornell has crossed and a second timer has stopped his watch. Down and up two more times the flag waves; Washington, Wisconsin, Columbia and Pennsylvania have come in, and the race is over. The Stewards pull up to the Judges' boat, and the timers report their findings.

Here the telephone performs its important service. A man is already stationed at each end of the circuit with the receiver to his ear. The official figures are telephoned from boat to shore, there repeated to the waiting telegrapher who ticks them off on the wire to New York.

Immediately following the races the scene changed to the joint telephone and telegraph office at Poughkeepsie. There many extra telegraph wires had been installed and a corps of operators were already on hand to receive the rush of business. Their numbers were enhanced by the men who had been busy along the river during the race, and all settled down to sending the complete and detailed accounts of the big events as they came from the pens of the newspaper correspondents. The sending of the "press" matter lasted until eleven o'clock in the evening, the work closing with a total of 40,000 words sent during the day, and making up a total of over 100,000 words sent out during the day of the race and the eleven previous days of training when the reporters were watching the practice and supplying the "dope" whereby the sport-loving American people could sum up the chances of their favorite crews.

In addition to this heavy file of press matter, the popular event, with its attendant crowds, brought a big volume of regular telegraph messages, our receipts for the day exceeding an average day's business by 207%.



A Dial-Log

Or Keeping a Record of Growth

OUR salesmen are naturally much interested to know from day to day the amount of business secured and how it compares with the provisional estimate.

This illustration represents a dial which was suggested by Salesman G. W. Ross, and is used in the Elizabeth Commercial Office replacing the thermometer formerly used for this purpose.

It is laid out on a 20" circle, divided into the twelve months. Each day of the month is represented by a small mark, every fifth mark being a little longer than the others. Opposite these marks are the figures which indicate the provisional estimate.

The hands marked "Estimated" and "Actual" can be turned as desired from the rear, "Estimated" always being on the present date and "Actual" on the number of stations gained since January 1.

The small dial below shows the estimated and actual number of stations gained during the previous year by months. The figures inside the circle show the number estimated; the outside ones indicate the actual gain.

Comparisons can thus very easily be made with any month of the previous year. F. W. WARNKE,
Dist. Com. Mgr., Elizabeth.

Borrowed the Telephone

"What does this mean, Bridget?" exclaimed the lady of the house, returning from shopping. The telephone's been taken out."

"Sure, ma'am, the girl across the way came over and said her missus would like to use it for a little while, and I sint it over to her; but I had a terrible job gettin' it unscrewed from the wall, ma'am."—*Exchange.*

A Sure Sign

Summer is on its way. For instance, there's the prematurely published story of the imprisoned dog which overturned a telephone and barked into the transmitter till released.—New York *Evening Sun.*

Convenient

"What do you think of this proposed telephone attachment to enable the talkers also to see each other?"

"It will be fine. Then I can call up my husband to tell me if my hat is on straight."—Louisville *Courier Journal.*

Digitized by Google

SADDLE RIVER CENTRAL OFFICE, SHOWING CABLE ENTRANCE.

New Seneca Cut-Over

PROMPTLY at ten o'clock Saturday night, June 28, the new Seneca switchboard located on the fourth floor of the Company's new building in Buffalo was cut into service without a hitch.

Most of the division officials of the Company and nearly one hundred guests were present at the cut-over, which took about a minute and a half. The force of fifty-nine operators employed at the old Seneca Exchange had been augmented to seventy at the new exchange. There are 10,000 lines in the new switchboard, only 4,000 of which will be in use for the present, the Company having made ample provision for the growth of the city.

The new Seneca and Tupper Exchanges in Buffalo represent absolutely the latest word in telephone equipment, with the most modern type of Western Electric Company switchboards.

Saturday, June 28, also marked the occasion of the removal of the local commercial office to the ground floor of the Telephone Building. This was successfully accomplished and the office was opened to the public on Monday, June 30.

VIEW OF SADDLE RIVER.

Saddle River, N. J.

Central Office Opened June 7, 1913

SADDLE RIVER, N. J., one of the numerous Bergen County boroughs situated inland out of reach of railroads and trolley lines, formerly served by means of one line from the Ridgewood Central Office, as a part of the Allendale theoretical central office district, can now lay claim to having its own telephone exchange, the opening of the new central office having occurred on Saturday, June 7, 1913, with twenty-five lines and thirty stations. The exchange is located in the farm house of J. J. Strunt on the main road leading from Allendale to the Saddle River postoffice.

The area served comprises the boroughs of Saddle River and Upper Saddle River, covering approximately thirteen square miles of scattered farms and suburban homes with a population of about 500. The canvass for new subscribers which was consummated in one day by four salesmen from the Paterson office using the Company's automobile, resulted in twenty-one new contracts, twelve of which called for direct lines, with prospects good for adding several more in the near future.

M. J. MALONEY,
Dist. Com. Mgr., Paterson

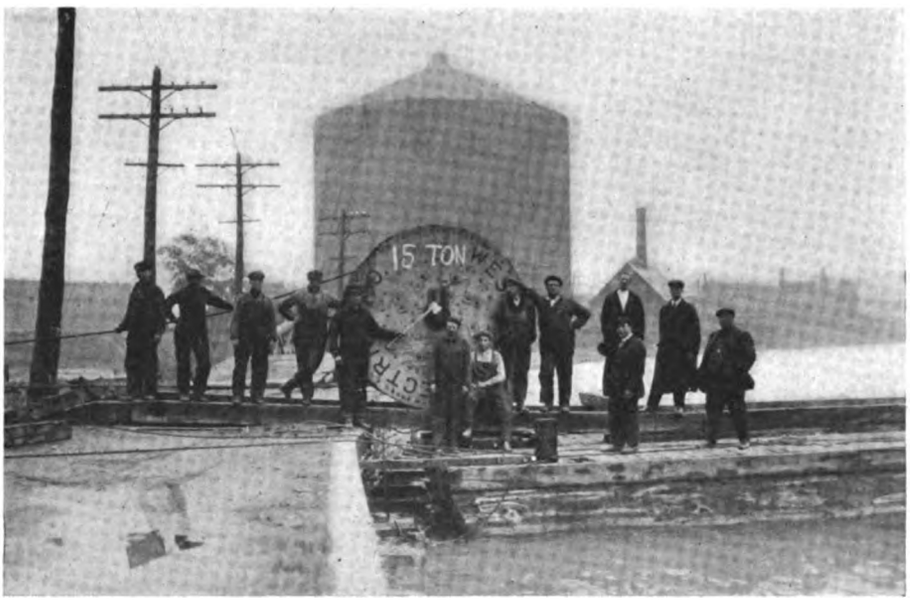
ROAD LEADING TO SADDLE RIVER CENTRAL OFFICE.

Digitized by Google

Laying Submarine Cable in Buffalo Harbor

THE Federal Government has been making extensive improvements in Buffalo Harbor, especially in deepening the Ship Canal which is to carry commerce past the swift Niagara current opposite Buffalo to the quieter stretch of water to the North. At the International Bridge which spans the Ship Canal and the Niagara River, there is a crossing by which important Canadian toll lines enter the City of Buffalo.

The submarine cable crossing the Ship Canal was necessarily removed during the extensive dredging operations and construction of the immense new concrete locks at this point. Upon the completion of this Government work, it was decided to lay across the Ship Canal a new duplex armored submarine cable to carry the toll lines at this important point.



LAYING SUBMARINE CABLE IN BUFFALO HARBOR. PLACING THE 15-TON REEL OF CABLE ON THE SCOW.

THE START.

A trench was dredged across the Ship Canal just South of the International Bridge to the depth of 28 feet below mean water level, five feet below the regular channel depth.

There was required 1,114 feet of armored submarine cable of 12 quads of No. 13 gauge wire, and 14 quads of No. 16 gauge wire. The weight of cable on the reel was approximately fifteen tons.

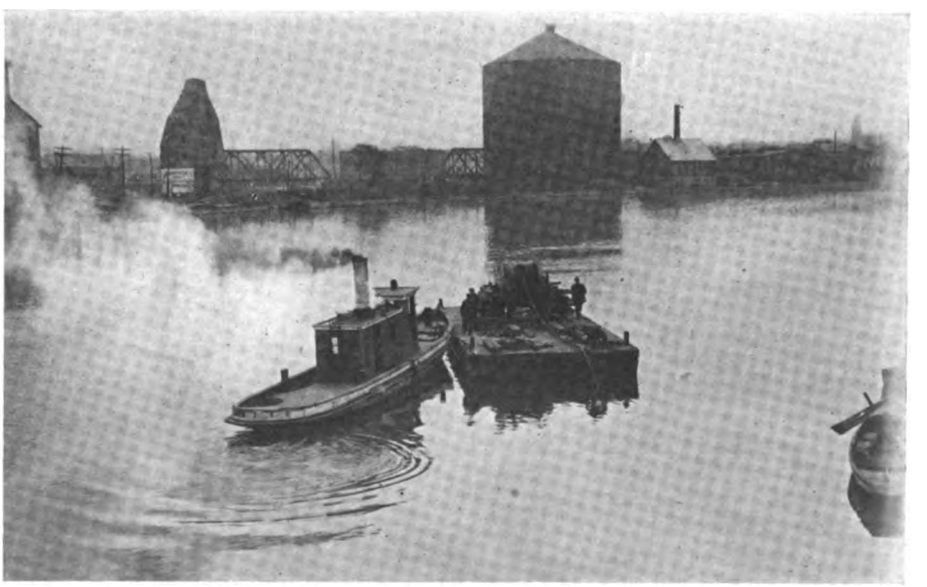
To place this reel on a scow and set it up so that the cable might be unreeled as the scow was drawn across the channel, was a "hefty" job, but Foreman Lina Beecher proved to be weighty enough to complete it successfully. The end of the cable was anchored on one side, and the scow was pulled across the channel, using the winch on the three-ton "Mack" truck as motive power, and a small tug to keep the scow over the trench.

A smaller submarine cable was laid in the same trench for the Great Northwestern Telegraph Company.

The Big Show in San Francisco

THIRTY operators working at one gigantic switchboard, connecting with two thousand stations, is the very attractive exhibit which will be installed by the Pacific Telephone and Telegraph Company at the Panama-Pacific International Exposition at San Francisco in 1915, to celebrate the completion of the Panama Canal.

The switchboard will serve as the central telephone station for the entire Exposition Grounds, and will at the same time prove one of the most interesting exhibits of "Electrical Meth-



PLAYING OUT THE CABLE.

Digitized by Google

ods of Communication" in the Palace of Liberal Arts.

A novelty in connection with the installation which has not been introduced before in exposition stations is that the whole plant will be enclosed in a huge glass case, so that visitors to the Exposition may see exactly how a call is made, received and transmitted to the party called.

The handling of local and long-distance calls may be watched by the visitor, who will be shown round through the installation by competent guides provided by the company.

The Exposition will be equipped with the most perfect telephone and telegraph system that has ever been used in an international exposition. The three main sections of the Exposition, the Exhibit Palaces and Gardens, the section for States and Foreign Nations special pavilions, and the section for Amusement Concessions will be connected as would different districts of a live city.

At various points in the grounds, and in every Exhibit Palace, there will be plenty of public booths for the use of intercommunication and outside connections.

Experts declare that the system which is to be installed for the Panama-Pacific International Exposition will be the most complete ever attempted at any World's Fair.

Some Interesting Reminiscences of a Telephone Pioneer

By E. W. Bigler, Local Manager, Newburgh

MR. E. W. BIGLER, Local Manager at Newburgh, and a Telephone Pioneer, has written an interesting reminiscent paper which we reproduce in part.

IN THE year 1892 I came with the old Hudson River Telephone Co., being appointed Manager at Newburgh, succeeding the first Manager, Geo. W. Peck, who is now connected with the American Telephone and Telegraph Company in New York City. The operating officials of the Company were Messrs. H. E. Hawley, Acting General Manager; W. B. Butler, Auditor; J. J. Fitzsimmons, Treasurer; and W. H. Cull, Superintendent and Engineer.

On my taking charge of the exchange, the accounts were checked up by the Treasurer, Mr. Fitzsimmons, who came down from Albany to make the audit, spending half a day at Newburgh, principally to instruct me in the duties of the office. I remember he found the cash on hand some fifty dollars over, which could never be accounted for and was later turned over to me on a voucher for petty cash advance.

Force and Equipment

The Newburgh force at that time consisted of three operators, one lineman and the Manager. We furnished continuous service, but the night operator was permitted to sleep on a cot in the office, being awakened by a night alarm if a call was rung in. We had no telephone directories in book form at that time, the names of the subscribers being printed on a card. There were three hundred stations in service—all wall sets of the Blake transmitter type and connected by grounded circuit lines. Desks and sets were unknown in Newburgh, and it was not until several years later that they were introduced.

"Routine"

The word "routine" which we now hear so much of was not in use in the old days, and as to monthly reports we had but one, which consisted of a statement of the connections and disconnections, receipts and expenditures, a record of the number of telephone instruments in use and on hand and the instrument number of each receiver and transmitter received or returned during the month.

The subscribers' bills for rentals and tolls up to 1894 or 1895 were made out each month by the Manager, the collections being deposited in a local bank, and at the end of the month a check was drawn covering the receipts on deposit and forwarded to the Auditor with our monthly report. The only report made by the office in addition to the monthly report mentioned was our daily record of in and out toll calls, which, as I remember, averaged about 30 per day, and when we occasionally had in the neighborhood of fifty calls, we thought we were doing a very large business.

Toll Lines

The first copper metallic toll circuits connecting Newburgh with Poughkeepsie and Fishkill Landing exchanges were completed in the late summer or fall of 1892, there being one Newburgh-Poughkeepsie circuit, one Newburgh-Fishkill circuit and one Fishkill-Poughkeepsie circuit. These toll circuits to Poughkeepsie enabled Newburgh and Fishkill Exchanges to talk with ease to Albany and New York City over the lines of the American Telephone and Telegraph Company, which cut in at Poughkeepsie. The rate to New York City from Newburgh was $1.00. Not many calls, however, were handled, and as the Hudson River Co. was of course charged for all A. T. & T. messages, we rarely, if ever, talked with the home office of the Company at Albany.

In addition to the toll lines I have mentioned, Newburgh boasted of grounded circuits connecting toll stations at Cornwall, Marlboro, Montgomery, and Walden and two ground circuits to Middletown Exchange, on one of which Walden and Montgomery were served. In the summer of 1893, I had become so expert in the telephone business that I conceived the idea of changing over the two Middletown ground circuit lines to a metallic circuit, and the lineman and I did this, installing a jack box, which we had constructed, at Montgomery, which was about mid-way between Newburgh and Middletown. This jack box was used to enable our toll station agent to test the line for trouble, which he would do every morning, if he thought of it. If he was unable to call Middletown, he would plug out that office to enable the other half of the line to work, and vice-versa.

We made these changes, like many others, without the formality of taking the matter up with our home office for approval, and it was not until Mr. Hawley visited Newburgh several months after that I reported what had been done.

Rates and Collections

The rates for telephone service at this period were Direct Line Business $60.—Direct Line Residence $42. (No party line or extension station rate). The year previous the business rate had been increased from $48. and all of the subscribers to this class of service, with but two or three exceptions, were paying the old rate. It was quite impossible to secure new business stations at the new rate, as we were permitted to take on a new subscriber at the old $48. rate whenever we had a disconnection, and for this reason usually had a waiting list.

Collections were easy as all of our subscribers were of exceptionally high class credit, and in the early years of my service it was a very rare occurrence when a telephone was taken out for non-payment and even then we would be caught for but one month's charges.

Digitized by Google

Territory Increased

A few months after coming with the Company my territory was increased by the addition of Tuxedo Park, Fishkill Landing and Cold Spring exchanges, and at the first two places we had one operator each, also a lineman or combination man at both places who operated the switchboard at night. Cold Spring was an agency operated office.

Growth in Construction and Facilities

For the first few years but little construction work was required except what could be handled with the local force, augmented by two or three linemen employed temporarily from time to time.

In the year 1897 Newburgh came into prominence when the first four-party selective system was installed and tried out. Then and for several years this service was known as the Newburgh system. During the two years following considerable aerial cable was run; rate changes were put into effect and on January 1, 1899, we had a total of 413 stations in service. During this year the central office was moved to 72 Second Street, its second home, and two years later, I was very much set up by being given an assistant who acted as wire chief and collector. A year or two previous to this we had opened up offices at Garrison, Marlboro, Montgomery and Walden, and these exchanges, together with the others in the district, were all handled from Newburgh.

The growth of the telephone from 1899 at Newburgh was gradual and quite rapid, especially in the last few years and the facilities for handling the business have been increased accordingly, but as my subject was not the growth of the telephone, but of its early history in my memory, it is not necessary for me to touch on that.

Change of C. O. Batteries at Morningside

THE substitution of fifty-one G batteries for the thirty-seven G type batteries at Morningside has been completed. This work was done by the Power Plant Force, and from a telephone point of view was an interesting installation.

As the new battery was to be placed in the same space that the old battery occupied some arrangement had to be made to carry the plant while making this change. This was done by the use of automobile batteries of the Exide type.

Forty-four cells were used, wired in series parallel; this gave sufficient ampere hour capacity to carry the plant with an allowance for any sudden demand that might be made of them. After the automobile batteries had been set up, jumper leads were carried to the bus bars of the regular C. O. battery and clamped, and the old battery circuit was then opened by cutting the positive plates in No. 1 cells. After the Exide battery had been observed and everything found to be working smoothly, the acid was syphoned from the old battery and the plates left to drain all night. The following day the plates and old battery tanks were removed.

After the floor was prepared the new tanks were set in position and the plates placed and burned in. The lead burning necessary for the 510 plates used in the 51 G battery was accomplished in eight hours. A tent was then built around the batteries to keep in the acid fumes while making the initial charge. The material used was a coarse muslin which had been chemically treated to make it fireproof.

Fifty-eight carboys of acid were needed to fill these batteries completely. The acid was carried to the 3rd floor and emptied into a tank from which it was delivered to the battery on the 2nd floor by means of a rubber hose. When the tanks were filled and the initial charge started, the automobile batteries were cut out.

On account of their weight, and for convenience in handling, the automobile batteries are made up in groups of five and six cells. They weigh respectively 325 and 400 lbs. The flexible character of these batteries for telephone work is apparent. They can be used as readily in a small plant as a large one, the only difference being in the number of cells required to care for load conditions.

The load at Morningside is one of the heaviest in Manhattan; the peak load is not as great as in some offices, but the load is constant until late at night, so that the conditions under which the automobile batteries were tried out furnished a good test of their efficiency.

The disconnection of the old and the installation of the new battery was completed without a complaint of any kind, and great credit should be given the Power Plant Force for their efficient work.

D. C. PRICE,
Wire Chief, Morningside.

The Telephone Operator

SOME occupations have always had the misfortune to be handicapped by a tendency on the part of the general public not to take them seriously. No matter how serious and earnest the individual may be, the type has usually been misrepresented or even been the object of jest. This misrepresentation is often based on some characteristic or characteristics which may have been true at one time to a certain extent, but although lived down, are still in the minds of the public as being typical of the members of that occupation.

The telephone operator, as a class, is one of the most misrepresented. In the last few years there have been several plays which used the telephone operator as a character and usually this part, while depicting the general public's idea of an operator, has been very far from representing an operator as she really is.

The stage conception is usually a girl who chews gum while at work, uses slang at all times, picks up an acquaintance with any one who advances half way, reads books and papers while on duty, and listens to and repeats important conversations. That such an idea of an operator is misleading to the public is shown by some of the written and verbal comments made by subscribers. We, of the Telephone Company, know such ideas to be misrepresentations, but many of us do not take pains to discourage them. Very often we simply smile and thus give a negative impression that the criticisms are justified. Let each of us resolve the next time we hear such comments, to point out that a telephone operator does not chew gum while on duty, does not use any more slang than the average young person of her age, has no opportunity to pick up chance acquaintances while on duty even if she so desired, reads nothing at the switchboard, and would break one of the strictest rules of the Company in listening to conversations —even if she had time to do so, which she does not.

If he or she is still unconvinced, invite them to visit the central office and advise the chief operator accordingly. An understanding of the work an operator has to do will do much to disabuse subscribers' minds of any mistaken ideas. This emphasis on the dignity of the occupation of the telephone operator will do much toward eliminating the unreal stage "operator" and impressing on the public the fact that an operator fills an important and serious place in the business world of to-day.

C. H. HARTZELL,
Chief Traffic Inspector, Newark.

Organization Changes

CENTRAL DIVISION.

Traffic Department

Miss Grace Hodge appointed Chief Operator at Waterloo.

Commercial Department

M. C. Tetley, Resident Agent, Cortland, appointed Local Manager, Auburn, vice F. E. Smith, resigned.

A. H. Fox, Salesman, appointed Resident Agent, Cortland.

Digitized by Google

Doing It for Rochester

First Wholesale Trade Excursion from Rochester a Big Success

ON Tuesday, June 3, at 8:30 A. M., an all-steel special train, consisting of three Pullmans, Cafe Observation, and a Baggage car, carrying fifty Rochester Wholesalers, pulled out of the B. R. & P. R. R. depot in Rochester for a three-days' trip through twenty-two towns and cities in the western part of the State.

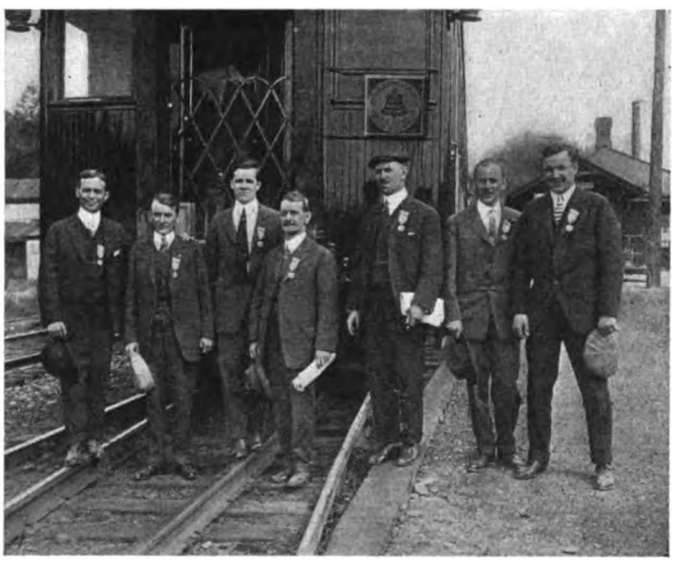
The trip was arranged by the Wholesale Trade Committee of the Rochester Chamber of Commerce for the purpose of giving the Rochester business men an opportunity of meeting their customers in the various villages and cities face to face. The men received the most cordial kind of welcome in all the places that were visited.

The train was equipped with telephones, consisting of a main station in the cafe car and an extension in one of the Pullmans. The cars were wired so that connections could be made with the exchange system at specified places each day. District Manager W. J. O'Hea represented the New York Telephone Company, and G. A. Morley, of the Traffic Department, looked after the calls. The details of making connections were carefully worked out in advance and great credit is due the Plant and Traffic Departments for the remarkable speed with which connections were made, five seconds being the average for the entire trip. At Warsaw, Hornell and Avon connections were made as the train rolled into the station, and conversations were held while the trains were still in motion. The Rochester *Evening Times* ran the following item on June 6: "William O'Hea, of the Bell Company, broke all records by making a connection at Avon, and calling the operator several seconds before the train came to a stop."

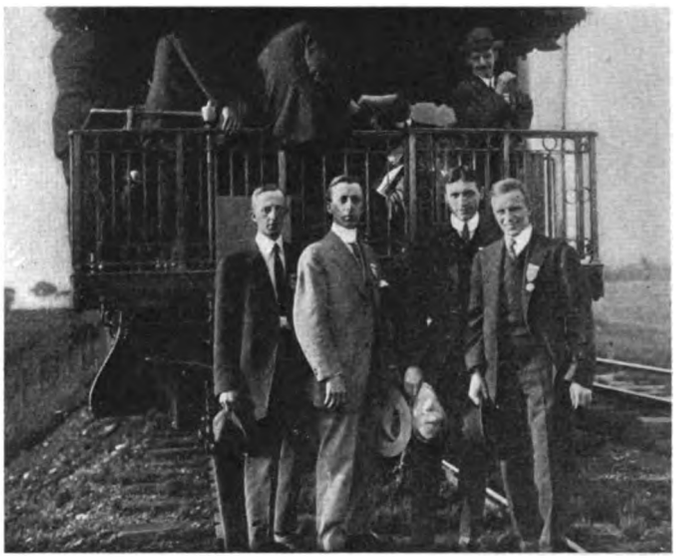
As a reminder of the trip, a copy of "The History of the Telephone," with the itinerary of the trip printed in gold letters on the outside cover, was given to each man on the train, and that they were appreciated was evidenced by the fact that they were carefully stowed away in grips and suit cases, and many requests were received for extra copies.

On the way home, on June 5, after leaving Avon, the men congregated in the observation car and an organization known as the Wholesale Boosters'

Left to Right: H. E. Huntington, G. P. A., B. R. & P. R. R.; W. J. O'Hea, Dist. Mgr., N. Y. Tel. Co.; J. A. Brohel, Chairman, Wholesale Trade Excursion.



Left to Right: R. B. Woodward, Secy. Rochester Chamber of Commerce; W. J. O'Hea, Dist. Mgr., N. Y. Tel. Co.; G. A. Morley, Traffic Dept., N. Y. Tel. Co.; J. A. Brohel, Chairman, Wholesale Trade Committee; D. Crockett, Asst. Secy. Rochester Chamber of Commerce; Ralph Barstow, Asst. Secy. Rochester Chamber of Commerce; H. W. Benedict, Dist. Traffic Chief, N. Y. Tel. Co.



NEWSPAPER REPRESENTATIVES.

THE ENTIRE PARTY ON THE ROCHESTER TRADE EXCURSION.

Digitized by Google

Club of the Rochester Chamber of Commerce was perfected. District Manager W. J. O'Hea was elected secretary.

The trip was a success from beginning to end and this was due in no small measure to the efforts of J. A. Brohel, chairman of the Wholesale Trade Committee, and Howard W. Benedict, secretary. Mr. Benedict is the District Traffic Chief of the New York Telephone Company for the Rochester District.

W. J. O'HEA,
District Manager, Rochester.

Buffalo Trade Excursion

Annual Spring Trade Excursion of Buffalo Wholesale Merchants' Association Had Bell Service Throughout the Trip

TUESDAY, June 10, at 7:00 A. M., the Wholesale Merchants' Association of the Buffalo Chamber of Commerce, left on a three-day excursion to Ashtabula, Ohio, Titusville, Pa., and St. Marys, Pa., including stops at seventeen towns in Pennsylvania and Ohio and six in New York State.

The train was equipped with two desk Bell telephones, one of which was for service in towns where the common battery equipment is used, and one for local battery equipment. These two desk sets were placed in a compartment of one of the Pullman cars, and connection with the local Bell system was established at each stop in the itinerary, with two exceptions.

Bell service was used more on this excursion than on any other previous one, and the quality of it was most excellent. In fact, a number of the excursionists commented highly upon the rapid connections which were established and the remarkable clearness of transmission.

During the whole trip, there were 72 long distance and toll calls made, the service being in charge of George F. Wallace, of the Traffic Department.

H. C. Stephan, Local Manager, Buffalo, was the Commercial Department representative. Some 2,500 pieces of advertising matter were distributed, both on the train and at different towns where stops were made. The literature pertaining to "Selling by Telephone" created particular interest, but the largest advertising feature lay in the fact that the Bell telephone service on the train was one of the important factors of the trip.

TELEPHONE DISPLAY IN DOUBLE WINDOWS OF O'NEILL-ADAMS CO., SIXTH AVENUE AND 22D STREET, MANHATTAN. TWO MOTION PICTURE MACHINES IN THE CORNER DEPICT THE CONVENIENCE OF TELEPHONE SHOPPING.

A Big Telephone Window Display

A TELEPHONE window display was recently made in the main store of the O'Neill-Adams Company in New York. The store is located on the corner of Sixth Avenue and 22d Street, and the two windows really make one big window facing in both directions. The purpose of the display was to depict "Sending the Order." The treatment was in the "then" and "now" manner. The accompanying illustration does not show the tasteful and attractive color scheme, but serves to indicate the general arrangement.

One window represented an up-to-date sitting room with a modern housewife demonstrating household ecohomy by giving her orders over the telephone. A card in this window read: "There are more than 500,000 telephones in Greater New York. All telephones connect with O'Neill-Adams Company, Chelsea 5700."

The other window represented a room of the colonial period. A card in this window read: "During the colonial period the telephone was unheard of. Messages were dispatched by mail coach or courier, taking much time and their delivery was uncertain. During the present time messages can be transmitted instantly by telephone."

In the corner of the window where the two streets meet, two Travelling Salesmen Machines were set up and showed by a series of individual pictures how easy and comfortable telephone shopping can be made.

We also print an illustration which shows the crowd around these windows.

A REPRESENTATIVE AFTERNOON GROUP LOOKING AT THE TELEPHONE WINDOW DISPLAY—O'NEILL-ADAMS COMPANY'S MAIN STORE.

Digitized by Google

The Means by Which Infection Is Transmitted

By Dr. Alvah H. Doty

Medical Director of the Employees' Benefit Fund Committee of the American Telephone and Telegraph Company, The Western Union Telegraph Company, and The Western Electric Company

No subject relating to the protection of health is more generally misunderstood by the public than that which deals with infectious diseases and the way they are transmitted from one person to another. Certain theories connected with this subject which have been long and universally accepted are now known to be largely wrong. The most notable among them being the so-called "fomites" theory which maintains that clothing, baggage, cargoes of vessels, various textile fabrics, money, etc., are common agents of infection, whereas the truth is that these articles transmit disease only in rare instances. This belief has in the past been very generally accepted although but little scientific evidence has been presented to uphold it, and its chief support lies in the fact that it offers a ready and plausible explanation for outbreaks of infectious disease which at the time cannot otherwise be explained.

As a result of this belief the public are harassed lest they become infected through the medium of the clothing of those they meet who have been in contact with a case of infectious disease, or who may themselves have been directly exposed and fear they may transmit infection in the same manner to members of their family or others. The alleged danger from this source has been responsible for many unnecessary and illogical practices, for instance, some persons handle car straps very cautiously for fear of contracting disease, although those who are timid in this direction will handle the rail of a public stairway and many other exposed surfaces with impunity, still one offers the same possibility of transmitting infection as the other. It is true that these exposed surfaces contain many germs, but as a rule they are harmless ones and exist everywhere, and will be found on our hands, the linen we wear, etc. While it is possible in some uncommon instances that "pathogenic" organisms, i. e., the germs which cause infectious diseases may be transmitted from one person to another by clothing, etc., the danger from this source is so very remote that it need cause no apprehension. Even if some of the infectious organisms were deposited upon our clothing, they would probably soon become inactive from exposure and from the fact they are separated from the substance which provided them with nourishment.

Old and filthy paper money is looked upon as a fruitful source of infection although there is but little truth in this belief. While it is advisable and proper that money in this condition be removed from circulation it should be understood that it is for appearance sake rather than because it is a medium of infection.

It is also believed that infection is transmitted over long distances through the air, for a mile or more. There is not only no definite scientific proof of this, but in the light of our present knowledge this theory is not entitled to respectful consideration.

There are innumerable other popular theories of this kind which have long been cherished by the public but in recent years have been proven to be without substantial foundation, therefore it is of interest to know what are the true media of infection. Fortunately, we now have very extended and definite information on this subject.

Infectious diseases are transmitted directly from one person to another through the medium of various discharges from the body which contain infectious germs or organisms. These germs may also be transmitted from one person to another indirectly through the medium of food or drink or by certain insects. If all cases of infectious diseases were well marked and could be promptly and easily identified the danger of their extension would be greatly diminished, for we could then better guard against infected discharges and eruptions, but unfortunately these diseases very often appear in a mild, irregular or unrecognized form and are overlooked or mistaken for some simple malady and probably treated with home remedies.

Another very common and dangerous means of infection along these same lines and which more recently has been fully recognized is the transmission of disease by what are known as "Carriers," i. e., persons who contain actively infectious organisms within their body but present no evidence of disease themselves and apparently are well, yet through the medium of their discharges may infect water, milk, food, etc., and thus transmit disease to others. This very frequently occurs in connection with Typhoid Fever and Cholera and also in other diseases.

Certain insects transmit disease, for we have indisputable evidence that Malaria and Yellow Fever are contracted by the bite of certain varieties of the mosquito, and so far as we know at the present time, there are no other means by which these diseases are transmitted. The danger of the fly as a medium of infection is also known to sanitarians. The flea that infests the rat is a common means of infection in Bubonic Plague, and it has recently been proven that the body louse transmits Typhus Fever from one person to another. Both Plague and Typhus Fever are referred to in the earliest medical literature and in the past have caused great loss of life. For instance, during the 14th century Plague invaded Western Europe and it is estimated that during a period of twenty years or more under the name of the "Black Death" it destroyed one-fourth of the population of that section of the globe. Such a condition could not occur today, for the infectious organism of Plague, as well as the germ which causes other infectious diseases, has been discovered and the means by which they are transmitted is known, therefore we can now deal promptly and successfully with outbreaks which in the past were followed by very serious consequences. This exceedingly important advance in our knowledge of this subject is largely due to the work of Pasteur and Koch, respectively a French and German bacteriologist who, working independently of each other, gave to the world, about the year 1880, the first definite and satisfactory information regarding the germ origin of infectious diseases. This was followed by active and extended investigation of this subject and has led to the identification of the specific organism of Tuberculosis or Consumption, Typhoid Fever, Cholera, Diphtheria, Bubonic Plague, and other infectious diseases. It would be difficult to estimate the importance of this discovery, for it means that never again will outbreaks of infectious diseases be followed by the devastation which has occurred in the past, provided modern sanitary methods are employed.

Infectious diseases thrive best where there is filth, overcrowding, bad air, etc. As an illustration, during the outbreak of Typhus Fever which occurred in New York City during the winter of 1893-1894, there were over 700 cases, and all but two or three of them were among the tenement and lodging-house population, where uncleanliness and overcrowding were markedly present.

The prompt detection of infectious disease is very important, for it not only offers to the one affected a better chance of recovery, but the proper isolation of those who are sick, which is an exceed-

Digitized by Google

ingly important factor in protection, goes far to prevent the extension of the disease. The value of this may be illustrated as follows: Typhoid Fever (which must not be confused with Typhus Fever already referred to) is slowly ushered in and may excite little or no attention, particularly if the case is very mild or what is commonly known as "walking" or "ambulant" Typhoid. This type of the disease is dangerous because the patient may receive no treatment or care until some serious complication occurs, whereas if prompt medical advice had been secured, not only might the patient's life have been saved, but the early detection of the disease would probably have led to the discovery of an infected water or milk supply, and through this knowledge further sickness or death may have been prevented.

Tuberculosis exists almost everywhere and its early recognition is also of great importance; unfortunately, cases of this disease frequently reach an advanced stage before they are detected, then but little can be done for the patient and in the meantime infection has been very generously distributed. Smallpox often appears in a mild form and may be mistaken for some condition which is not infectious and through this error a serious outbreak may follow.

Diphtheria, Measles and Scarlet Fever, which are so constantly with us, are frequently unrecognized, and there is no doubt that the increased number of cases of these diseases which occur at the beginning of school year is due to their transmission through the medium of discharges from undetected cases and not from infected clothing as it was formerly supposed.

In Tubercuosis it is the sputum or expectoration that contains the infectious organism, and this may be transmitted in many ways, particularly where uncleanliness and overcrowding exists, for in such instances less care is taken against the danger from this source. Besides, under these conditions many things are used in common which act as media of infection. In Typhoid Fever and Cholera it is the intestinal discharges which transmit the infectious organisms and through this source water, milk, and food supplies may become contaminated. In Diphtheria it is the discharge from the nose and throat we must fear, and in Measles and Scarlet Fever the discharges from the ears as well as from the nose and throat contain actively infectious organisms.

The great frequency with which Diphtheria, Scarlet Fever, and Measles occur, particularly among children, is due largely to carelessness in dealing with the discharges, for in Measles and Sacrlet Fever the danger from the latter is far greater than the eruption which is present, although this is not generally known. Children keep close to one another and cough and sneeze in one another's faces, and there is but little wonder that infection is commonly transmitted, particularly when so many of these cases are either unrecognized or are not under proper medical supervision. One factor which favors this condition is the very common practice of treating those who are only slightly ill with domestic remedies. While this, in some instances, may answer the purpose, there are many times when the lack of prompt medical treatment has not only been responsible for loss of life, but has led to serious and extended outbreaks of infectious diseases. Proper care in this direction must be regarded as an economical factor as well as a greater protection to the patient and to the public health.

We now deal with facts which have been established as the result of exhaustive scientific investigation and practical experience, and the erroneous theories of the past have been replaced by definite knowledge regarding the true means by which infectious diseases are transmitted.

The modern method of protecting the public health is by prevention rather than treatment. The basis of this is cleanliness, the proper care of one's person, his household, and the aid he may extend to others in this direction. If our health is preserved we are far better able to resist disease than if we are in poor physical condition. This is very clearly demonstrated, particularly in connection with Typhoid Fever and Tuberculosis, for these diseases usually select for their victims those who are in impaired health and whose resisting power is weakened.

Preventive measures if practically applied offer not only valuable means for improving the public health, but will go far towards eliminating infectious diseases. These measures are not difficult or unpleasant to carry out, however; success depends upon the co-operation of the public, and for this reason it is important and necessary that the means by which infectious diseases are transmitted and the methods to be employed in dealing with them should be properly understood.

Before concluding this subject a word must be said in reference to the mosquito and the fly, for their extermination is an important preventive measure. While we have more definite scientific information regarding the propagation of the former and its danger as a medium of infection, there is ample proof that the fly also transmits disease.

Those who live in mosquito-infested districts are familiar with the little squirming bodies known as "wigglers," about a quarter of an inch long, which are found in stagnant pools of water, rain water barrels, old tinware, broken roof leaders, crotches of trees and almost any place that water may be collected. These are mosquito larvæ and represent the second stage in the propagation of this insect.

Mosquitos breed only in water, upon the surface of which they deposit their eggs—usually at night time, for it is then that the mosquito is most active, as we well know; generally after twenty-four hours the eggs hatch and the larvæ, to which we have just referred, drop into the water. After a period usually of seven or eight days, sometimes longer, they pass to the pupal stage, which is of short duration —not more than two or three days and is preliminary to the birth of the *full-grown mosquito*.

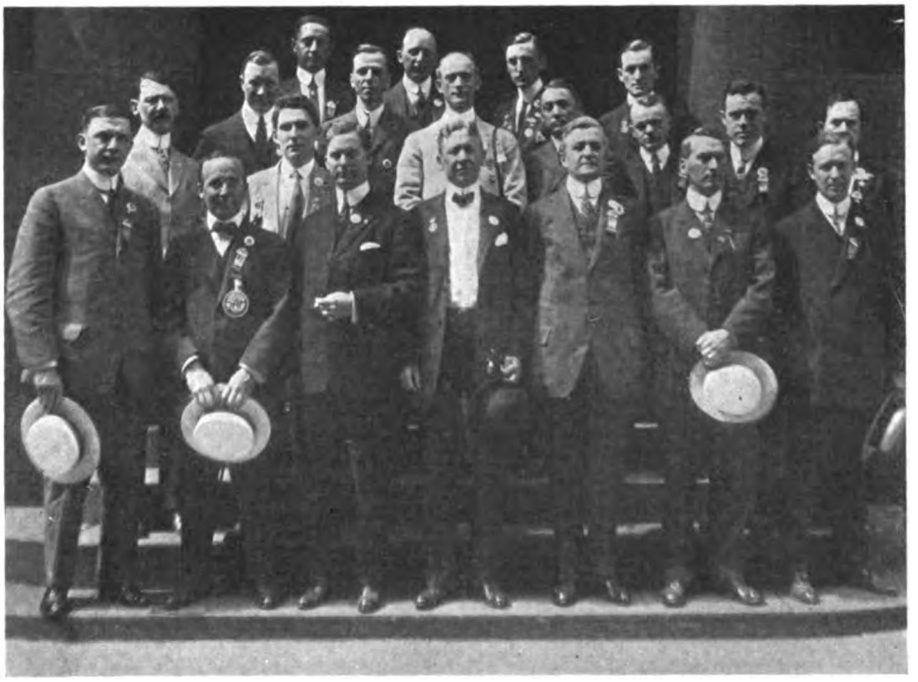
As the common inland mosquito will lay three or four hundred eggs at one time, and as these become winged insects in about two weeks, it is not difficult to understand the rapidity with which these insects propagate. Mosquitos do not as a rule breed in large bodies of water, but prefer small quiet pools where there is a large amount of organic matter, therefore filth contributes to the propagation of the mosquito as it does with the fly.

It is of great interest to watch the larvæ or "wigglers" for they are voracious eaters and may be seen darting about the water in quest of food, which they find in abundance in filthy pools. Curiously enough, while a larva cannot live out of water it must also have air, and if carefully watched it will be seen every minute or so to come to the surface above which it extends its tail containing the opening of the respiratory tract. The knowledge of this is taken advantage of in the extermination of the mosquito, for if the receptacle containing larvæ cannot be removed or destroyed, a small amount of semi-crude petroleum oil is sprinkled over the surface of the water in the proportion of about half a pint of oil to an estimated water space of about ten feet in diameter. When the larva extends its tail above the surface, which is covered with oil, the minute opening of the respiratory tract is plugged up and the larva dies of suffocation within fifteen or twenty minutes.

This article does not admit of a full description of the propagation and extermination of the mosquito or the fly, but it will be sufficient for the present purpose to state that mosquitos breed only in water and that success in exterminating them depends chiefly upon the care and patience which are observed in detecting their breeding places. Efforts to exterminate either the mosquito or the fly by destroying the winged insects, except for personal comfort, is worse than useless, for it does no good and is misleading, as it abstracts attention from the only means of successfully exterminating these insects, and this is by destroying their breeding places.

Flies breed wherever there is filth, their favorite breeding place being the stable, therefore, while their extermination is for various reasons more difficult than the mosquito, the most satisfactory results are obtained by the strict observance of cleanliness and other proper sanitary measures.

Digitized by Google



LUNCHEON AT MERCHANTS CLUB, BALTIMORE, MD., WEDNESDAY, JUNE 11, 1913, GIVEN BY C. & P. TEL. CO., DURING 9TH ANNUAL CONVENTION OF ASSOCIATED ADVERTISING CLUBS OF AMERICA.

Reading from Left to Right—Front Row: P. W. Eldridge, Directory Adv. Mgr., N. Y. Tel Co.; L. L. Cleaves, Central Div. Adv. Mgr., N. Y. Tel. Co.; R. S. Scarburgh, Adv. Mgr., N. Y. Tel. Co.; M. H. Buehler, 2d Vice-Pres. and General Mgr., C. & P. Tel. Co.; J. E. Boisseau, Publicity Mgr., C. & P. Tel. Co.; T. J. Feeney, Publicity Mgr., N. E. Tel. & Tel. Co.; F. S. Whitman, Baltimore Div. Mgr., C. & P. Tel. Co.

Second Row: Evelyn Harris, Publicity Agent, Southern Bell Tel. & Tel. Co.; Kendall Weisiger, Traffic Engineer, Southern Bell Tel. & Tel. Co.; C. H. Moore, Portland, Oregon, District Commercial Supt., Pacific Tel. & Tel. Co.; C. E. Rolfe, Directory Adv. Mgr., Bell Tel. Co. of Pa.; T. T. Cook, Editor *The Transmitter*; Francis Lawton, Jr., Commercial Engineer's Office, A. T. & T. Co., N. Y. City; W. T. Moseley, Vice-Pres.'s Office, Southwestern Tel. & Tel. Co., Dallas.

Third Row: S. M. Greer, Gen. Commercial Supt., C. & P. Tel. Co.; J. K. Jett, Directory Adv. Mgr., C. & P. Tel. Co.; F. C. Builta, Adv. Mgr., Neb. Tel. Co., Omaha, Neb.; H. K. McCann, ex-N. Y. Tel. Co.; Ed. Carney, ex-A. T. & T. Co.; H. G. Stokes, Adv. Dept., N. Y. Tel. Co.

C. & P. Hospitality

ONE of the advantages of the Convention of the Associated Advertising Clubs of America, held in Baltimore, recently was that it brought together twenty-two of the advertising men of the Bell Companies scattered all over the United States and enabled them to discuss matters of specific interest and importance affecting their work.

The accompanying illustration is from the photograph of a group which attended a luncheon on June 11, as guests of Mr. S. M. Greer, General Commercial Superintendent, and the Chesapeake and Potomac Telephone Company.

The warm hospitality extended by the Chesapeake and Potomac Telephone Company to all visitors of the convention who could be reached by it was one of the most pleasing features of the great gathering.

Saratoga Springs Defeats Schenectady

On Saturday afternoon, June 14, a team representing the Saratoga Springs employees crossed bats with a Schenectady Plant aggregation at Schenectady. The game went seven innings, and the Saratoga Springs boys emerged victorious by a score of 12 to 9. The contest was marked by the heavy batting of the victors.

N. Y. T. A C.

ARRANGEMENTS have been completed for the annual outing of the New York Telephone Athletic Club to Witzel's Grove, College-Point-on-the-Sound on Saturday, September 6, 1913. Tickets are now being circulated to the members and all you need to do to declare yourself for an enjoyable day is to step up and purchase your tickets. The palatial steamer chartered for the occasion will leave the Battery landing at 12:30 noon and after a sail on the placid waters of the East River, to the strains of harmonious music, will land at the Grove when the big festivities will begin. Among some of the athletic events are: A 100-yard dash (closed), a Tug-of-War between teams representing the various departments, an 880-yard run and a mile relay, both closed to members of the Club, 3-legged races, fat man's race, a ladies' race, bowling for prizes, several baseball games between picked teams, and a baseball throwing contest for ladies. An excellent dinner will be served. Dancing in the evening and other features calculated to make everybody glad that they attended will follow.

The Arrangement Committee is leaving no stone unturned to make the occasion a truly enjoyable one so it behooves you to remember the date and the place and procure your tickets early.

The price of the tickets will be for men, $2.50; ladies, $2.00, and children between the ages of 5 and 12 years, $1.25. Tickets entitle the holders to participation in all events, dinner, dancing and refreshments, and to transportation by boat from Manhattan to the grove and return.

Tickets may be purchased from any one of the 450 members, or from the following committee: W. A. Giblin, chairman, 18 Cortlandt St.; R. Kirkwood, 24 Walker St.; E. Jester, 130 Orchard St.; J. C. Axtmann, 18 Cortlandt St., Manhattan, and H. C. Montgomery, 547 Clinton Ave., Brooklyn.

HUGH S. KELLY,
Room 275 B, 18 Cortlandt St.

Club Emblems

The club has adopted a pin. These pins are of 14 kt. gold and may be obtained at club meetings on the second and fourth Fridays of each month, at 138 Spring Street, or from the Treasurer, J. R. Roy, Room 209, 15 Dey Street, and the Financial Secretary, M. A. McDermott, 18 Walker Street. The price of the pin is 65c.

Baseball Results

May 31.

Inspectors	11	Brooklyn Plant	6	Engineers	21
Plant Acctg.	5	Installation	2	Night Force	4
N. Y. Plant Const.	9				
Bldgs. and Sup.	0				

June 7.

Plant Const.		B'klyn Plant		Engineers	9
Night Force	(rain)	Inspectors	(rain)	Bldgs. and Sup.	0
Installation	9				
Plant Acctg.	0				

June 14.

Inspectors	12	Installation	11	Brooklyn Plant	9
N. Y. Const.	11	Engineers	5	Night Force	0
Plant Acctg.	9				
Bldgs. and Sup.	0				

June 21.

Engineers	9	N. Y. Const.		Installation	9
Plant Acctg.	0	Bklyn. P'l't (wet gds.)		Bldgs. and Sup.	0
Inspectors					
N. Force	(wet gds.)				

June 28.—No games.

Digitized by Google

Present Standing.			
Inspectors	5	0	.1000
N. Y. Construction	4	1	.800
Installation	4	2	.667
Engineers	5	3	.625
Brooklyn Plant	3	2	.600
Night Force	1	4	.200
Plant Accounting	1	5	.166
Buildings and Supplies	0	6	.000

Repair Shop Outing

THE good ship "Adonis" left her dock at the foot of East 24th Street, Manhattan, at 9:45 Saturday morning, June 7, for Glen Island, having on board about 500 Repair Shop employees, their relatives and friends, on an outing.

During a pleasant sail of an hour and a half a band discoursed lively music and refreshments temporarily appeased the appetites of the party.

Arriving at Glen Island, everybody made for the picnic grounds where the most interesting sight was the preparation of the barbecue.

In due time the barbecue was ready and full justice was done to it in short order. It was followed by a number of foot races in which both ladies and gentlemen astonished the onlookers by their bewildering speed.

Two picked nines then started a ball game which was abruptly terminated by a terrific thunder shower. The races had been fast ones, but the dash from ball grounds to pavilion not only made new records but was also notable for the large number of entrants.

The rain, however, dampened no one's spirits, and in a short time the pavilion floor was crowded with dancers and the bowling alleys were in great demand.

The most important event of the day was held at 6 o'clock when everybody adjourned to the casino and disposed of a shore dinner.

The committee in charge, of which W. I. Webber was chairman, is to be congratulated on the success of its efforts.

Metropolitan Accounting Picnic

ON Saturday, June 21, the Third Annual Outing of the Accounting Offices in the Metropolitan Division was held at "Duer's," Whitestone Landing, New York.

After a very enjoyable sail from the Battery on the Steamboat "Nassau," lunch was served immediately upon arrival at the grove. A spirited game of baseball between the Brooklyn and Murray Hill Accounting Centres (which was won by the latter) and several sets of games, in the majority of which the Murray Hill office came out victor, were followed by dancing which continued until dinner which was served at 7:30 in the evening. More dancing followed and the jolly crowd of over 300 ladies and gentlemen sailed for home at 10:30 P. M., after, in the opinion of everyone, having had "the best time ever."

Very handsome prizes were awarded to the winners of the athletic events, as follows:

Needle and Thread Race, Miss I. Hoblitz, Murray Hill Office; Egg Race, Miss M. Logue, Murray Hill Office; Potato Race, Miss F. Fassett, Murray Hill Office; 100 Yard Dash, Mr. Edw. Malloy, Murray Hill Office; 220 Yard Dash, Mr. W. V. Gover, Brooklyn Office; 3 Legged Race, Messrs. Gover and Hyde, Brooklyn Office.

Among those in attendance were Mr. P. O. Coffin, Auditor; Mr. J. A. Kennedy, Auditor of Disbursements; Mr. A. J. Norman, Auditor of Receipts; Mr. G. G. Volkmar, District Agent; Messrs. L. F. Halsted, C. Y. Meighan and W. J. Creamer, Division Auditors of Receipts, Metropolitan Division.

The Committee, of which the ladies are entitled to the greatest praise for their untiring efforts, was as follows: Mr. R. Collins and Miss Gilhooly, Newark; Mr. J. Gerson and Miss McEntee, Murray Hill; Mr. W. J. Creamer and Miss Ford, Brooklyn; Mr. C. Martens and Miss Tattersall.

W. J. CREAMER,
Division Auditor of Receipts.

ON THE OUTING OF THE REPAIR SHOP. BANNER IN BACKGROUND DESIGNED AND MADE BY V. VITALE.

Englewood Baseball Team

THE New York Telephone Co. Baseball Team of Englewood, N. J., opened its season on Decoration Day, when it sustained a 4–2 defeat at the hands of the Cresskill A. C.

Undaunted by the loss of the first game, however, the team crossed bats on July 5 with the Public Service Corporation aggregation, and but for an unfortunate and costly error would have triumphed. Up to the sixth inning the telephone boys enjoyed an apparently safe lead, but a wild throw by their pitcher let in three runs and cost them the game by a score of 11 to 10.

The season is still young, and despite their two defeats the Englewood ball tossers are confident that, when the curtain is rung down on August 30, they will show a winning percentage.

ENGLEWOOD 1913 BASEBALL TEAM.

Digitized by Google

Storage Batteries—Indications of Trouble

IN the operation of storage batteries there are many cases where close observation and inspection of the cells will indicate abnormal conditions which, if allowed to continue, would cause trouble. Some of the indications are given in the following article, which should not be understood to modify any of the existing instructions:

Short Circuits

The most frequent trouble is a partial short circuit in a cell. Probably the earliest indications of this are the absence or deficiency of gassing during overcharge, or falling off in voltage or specific gravity as compared to surrounding cells. Another indication is positive plates lighter and negative plates darker in color than those in surrounding cells. The cause is usually one of the following: Lugs touching at top of jar or supporting plate; a deposit of sulphate or sediment between lugs at same points; buckled plates; sediment touching plates; broken or missing separators. If the trouble is cleared at once, the cell affected may be used as a pilot cell for the next overcharge, which will usually bring it up to normal. If, however, the cell has become excessively discharged, an individual charge will be necessary and the matter should be taken up with the Power Plant Supervisor.

Improper Charging

There are many indications, aside from the regular readings, which tell us whether or not the battery is being handled properly. The power may be so variable that the charging rate cannot be assured, especially in very small batteries. The attendant may be careless, instruments defective, variable load not allowed for, machine too small, and other complications may occur which indicate that the charging should be checked by other means than observing the readings. One of the best indicators of the condition of the battery is the light-colored deposit on top of the positive plates. If this deposit is light and "powdery," is easily brushed off with a toothpick or pencil, and shows a rich brown color underneath, the battery is receiving sufficient charge. If it is hard and comes off in flakes or scales, the battery is not being overcharged long enough or often enough. If the former condition is found, the buttons in the positive plate should be tested by sticking a pencil or toothpick or similar non-metallic point into them. If the point penetrates, or the button seems soft, the overcharge has been carried too far, or is too frequent, or the regular charge has been carried too far. The gassing should be observed during charge. If the charging rate is correct, the bubbles will be about the size of a dime when the battery has reached the regular charge (five points Specific Gravity below the overcharge when tanks are fully equipped.) On the overcharge, of course, they will continue to grow larger until the level reading point is reached. If the charging rate is low, the cells will not gas freely. The gassing on the overcharge, by the way, has an important mechanical function, that of cleaning the positive buttons of the dead peroxide of lead. If the buttons have a "gummy" appearance or are comparatively smooth, it indicates that the overcharge is not correct. The buttons should have a clean, brown appearance and the points should be sharp.

A mossy growth on top of the negative plates is caused by excessive overcharging. If the negatives appear rough and full of pits and holes on top, it is caused by allowing the electrolyte to get so low that the plates project above it. The instructions should be strictly followed in regard to adding water.

Buckled Plates

This condition may be due to excessive overcharging, generally due to too high rate, undercharging or discharging at too high rate. In the first case, it is due to the excess of peroxide, causing undue expansion in the buttons. In the second case, it is caused by a deposit of sulphate on the buttons, clogging them so they cannot expand. At the first sign of buckling, the cause should be determined by the indications given above and the condition remedied. Do not attempt to straighten the plates while in service.

Impurities in Electrolyte

This condition is usually indicated by the positive plates becoming very light in color and the buttons or active material bulging out of the positive plates and becoming soft.

In general, if any of the above conditions are noted, the Power Plant Supervisor should be notified as this article is only intended to bring about a better understanding of the reasons for the instructions already issued.

J. R. LANE,
Div. Equip. Engr., Central Div.

Telephone Lectures in Newark Schools

DURING the past school term, a number of lectures have been given in the high schools in Newark, and classes have been brought to the Market Central Office, where they were shown the local and toll boards, operators' school, wire chief's department, the commercial department, etc.

As indicating the interest among the pupils, we print the following letter written by the secretary of the graduating class in the 18th Avenue Grammar School, to Mr. A. Petrone, a salesman in the Market Commercial office, who delivered a lecture to that class on June 3, which was followed by a visit to the exchange:

"18th Avenue School, Newark, N. J.,
June 10, 1913.

"Dear Sir,

"At a meeting of our class club, it "was unanimously voted to express "our sincere thanks for your kind in- "vitation to visit The New York Tele- "phone Company Building.

"After hearing the lecture on 'The "Marvels of a Telephone,' we more "than enjoyed our visit. It was not "only interesting to see, but very in- "structive and we hope we will each "be benefited by the visit; for the tele- "phone is truly one of the modern "wonders of the world. Will you "please thank the others who so kindly "assisted in explaining to us the dif- "ferent departments of the work?

"We hope that in the near future "you will again visit the 18th Avenue "School.

"In the name of the class I again "thank you for all favors extended to "us.

"Yours truly,
(Signed) "MORRIS BRATTER, Sec'y."

The first lecture was delivered before the scientific class of the Barringer High School on "The Marvels of a Telephone System," May 1. The lecture closed with an invitation to visit the Market Central Office, and on May 13 Professor Beals and thirty students visited the exchange.

On May 27 another delegation from the same school visited the Central Office. The interest created resulted in a request for a second lecture, and on June 3 "The Telephone Girl" was the subject.

At the Central High School "The Marvels of a Telephone System" was given to its physics class on May 16. The lecture room was crowded to its capacity, whereupon the principal, Mr. Wm. Wiener, requested that two other lectures, "The Telephone Girl" and "Our Most Democratic Institution—The Telephone," be delivered

Digitized by Google

to the same class on June 4 and 6 respectively, which was done.

Two groups of students from this school visited the Market Central Office on May 23 and 28. The largest audience, however, was at the 18th Avenue School, when the principal, nearly all of the teachers, and about four hundred pupils were present.

On June 9 the lecture, "The Marvels of a Telephone System" was delivered to the physics class of the East Side High School.

So well established have these lectures become as a part of the educational course in the schools of Newark that it is expected that a more systematic and thorough arrangement will be made by Local Agent E. W. Wollmuth next year for their delivery in all the schools.

Saving a Station

"WHOA! Whoa!" shouted the multitude (?) as a horse darted through the crowded (?) streets of Harrison, N. Y., dragging behind him a nearly wrecked wagon and panic-stricken driver.

Unaccustomed to seeing anything moving swiftly through said berg, the women and children ran to safety while men tried in vain to stop the runaway. Just at the critical moment, when death seemed inevitable to horse and driver, our Salesman, so accustomed to quick action and persuasiveness, gave a leap in front of the animal and waved a little cream colored book (our May local directory). Now, whether it was the book or the magnetic influence of our busy man will never be known, but the horse slackened his pace, our hero grabbed the reins and brought the panting horse to a walk and finally to a standstill. The excited driver climbed down from his seat and recognizing his rescuer exclaimed:

"You, you, who have come into my shop and told me not to give up my telephone! You, who told me I could not do business without it. Now when I try to forget I have a telephone and buy a horse to do my work, the Fates are against me and with you. My horse runs away, you save my life! Auch du lebe, it is too much. You have hard work to save your station but you do it."

Smiling, as usual, our Salesman turned away to go about his work when he heard a voice calling him:

"Hey, Mr. Niess, next time you pass my shop, come in. I guess now I would have an extension too so my wife won't run away."

(Miss) A. W. WELLSTOOD,
Cashier, Commercial Dept.,
Port Chester, N. Y.

How the Operators Shine in an Emergency

ABOUT 4:00 P. M. on June 24 there was a serious explosion in the grain elevator of the Husted Milling Company, Buffalo. It seemed certain that a large number of men had been killed or seriously injured, as the explosion was accompanied by a great burst of flame which immediately set fire to the wreckage. The Chief Operator of the Howard Exchange, in which district the elevator was located, learned of the disaster and prepared to meet the increase in traffic which she knew was sure to come.

Shortly after the explosion a call was received from the mill for the Emergency Hospital; the Chief Operator supervised the connection and as soon as the man had finished he called for another hospital and then for all the hospitals in the city. Before he could finish calling them he was forced to leave the telephone by the approach of the flames. The Chief Operator, however, accepted the responsibility and called all the hospitals on her own initiative.

The man at the mill was able to get back to the telephone a few minutes later and he called a doctor. After this call had been completed the Chief Operator called several doctors in the vicinity and told them of the accident.

The disaster proved to be of very serious proportions. The building was destroyed, about forty men were badly injured and thirteen were killed. Every sort of conveyance was pressed into service and it was only prompt action that prevented further fatalities. Quick action was made possible by the preparedness of the Chief Operator and her assistants to meet an emergency and to act with judgment and dispatch.

SCHUYLERVILLE, N. Y., a semi-agency office of the Hudson Division, is operated by Mrs. Halle, in whose residence the switchboard is located.

On the 21st day of May, in the early morning hours, fire was discovered by a local physician, Dr. Gow, in a barn about 30 feet from our office, known as the "stage-coach" barn, so called for its associations in those earlier days when the "coach and four" served as a means of rapid transit. Blowing his auto horn and shouting "Fire," the doctor succeeded in arousing some of the sleeping villagers, among them Mrs. Halle, who, taking in the situation at a glance, immediately called the Fire Chief by telephone. By the time the fire apparatus had arrived, the fire had eaten into the adjoining barns, one of which was used by the Company as a storeroom, and due to the headway obtained, it soon spread to the other buildings, two barns and a garage. In short it burned everything round and about our exchange, except the exchange itself which was on fire at three different times.

During all this excitement and with the flames blazing dangerously near, Mrs. Halle stood by her post, rendering service as fast as conditions allowed, totally oblivious to the fact that her household effects were being removed to the street, and against the instructions of the firemen, by whom she was ordered out.

She had had no time to dress, but hastily slipped on a mackintosh in which attire she was found by the District Traffic Chief and Division Plant Superintendent when they arrived on the scene. Even her clothing was in the street, and when order was restored, Mrs. Halle went back to the board, undisturbed by the unusual strain and her scattered household, convinced that she had not only done her duty but that which any other loyal employee would also willingly do.

The total loss of the fire was $50,000.

The Big Fire at Liberty

Splendid Co-operation of Telephone Forces

THE most destructive fire in the history of Liberty, N. Y., raged in the business section between the hours of 4:30 and 7:00 P. M., Friday, June 13. Its close proximity to the telephone central, 150 feet, and the local telephone and Western Union office, 200 feet, threatened their destruction at any time.

With its usual commendable promptness, the Plant Department was on the job at once. Local man Hallenbeck kept District Plant Superintendent Greenleaf at Kingston informed as to the progress of the fire, while General Foreman Brown at Newburgh made a list of material necessary to repair damage, taking the first train

Digitized by Google

FIRE AT LIBERTY, N. Y., JUNE 13, 1913, WITHIN 200 FEET OF OUR CENTRAL OFFICE.

to Kingston, automobile from there to Liberty, stopping at Ellenville to get 5,000 feet twisted pair, and arriving at Liberty at midnight. In the meantime Mr. Hallenbeck, Lineman Berwin and Foreman Carpenter with five men, were busy making themselves generally useful, watching central and commercial offices, guarding against possible fire from sparks, cutting cable, etc. Foreman Rogers, working on new Liberty-Monticello trunk line, came in four miles from the country with seven men to be on hand for emergency.

All hands were on the job until 12:45 A. M., returning to work at 4:00 o'clock the morning of the 14th.

By 9:00 A. M. General Foreman Brown had all necessary material on the ground—21,000 feet of twisted pair and 875 feet of 50-pair cable to replace cable destroyed; 250 feet 100-pair, 22 gauge and 375 feet 50-pair.

One hundred seventeen exchange lines were out of service and one hundred seventy-two stations. Seven telephones were lost in the fire.

By 10:30 o'clock all preliminary work was completed and ready for splicers, who arrived on the first train with Foreman Oldfield.

Toll service was undisturbed except westward. Every effort was made to restore full service, and the work was completed at 7:55 A. M.

Telephone service in the Public Booths was restored at 9:00 A. M. Cardboard signs were immediately displayed on a pole in front of the office notifying the public:—"Telephone Service Restored — Public Booths inside." Operators were instructed to give subscribers free town service from public booths at the central office and not to charge messenger send-outs on in-toll calls for subscribers out of service.

The Traffic Department should receive full credit for efficient work. The local force kept business moving and although in imminent danger from the fire, bravely kept at work telephoning for assistance of firemen in all adjacent towns, and helping the excited public in passing toll calls, all positions being filled on the switchboard; the chief operator turned messenger and located a number of people who were wanted on the telephone. The public is pleased with the attention given and efforts made to restore service.

A. S. Reynolds,
Local Manager, Ellenville, N. Y.

Word was received in Albany about 5:30 P. M. describing the progress of the fire and that it looked as though the Central Office would be destroyed. One of the three-ton trucks was gotten ready and loaded with a switchboard, all necessary Central Office equipment, and some cable. The truck was held at the Albany storeroom ready to start upon a minute's notice.

It was intended to run the truck through to Liberty, a distance of a little over 80 miles. It was estimated that the truck would reach Liberty within eight hours, so that the installation of the emergency switchboard could be started early Saturday morning, or as soon as temporary quarters were procured. Fortunately, however, it was not necessary to send the truck.

New Rochester Building

THE present Rochester-Main local exchange, Rochester Toll board and Long Distance board of the N. Y. Telephone Co. are in a building located at 95 North Fitzburgh Street, Rochester, N. Y. In this building, which was erected in 1901, was placed a common battery switchboard, which is believed now to be the oldest common battery board in New York State in point of length of service. The Traffic Department District Headquarters and the Commercial Department District Headquarters are also located here.

It has been necessary on account of lack of space for the Plant Engineer, Plant Equipment, Installation, Cable and other departments to seek quarters elsewhere in rented space. In order to have all departments under one roof the Company has decided to remodel the present building, adding enough space to make the completed structure about three times the size of the original building. The Company has purchased a plot of ground 140 feet deep with 25 feet frontage on North Fitzburgh Street directly north of the present building.

A dwelling located on this plot, together with store rooms and the Plant and Cable headquarters, which were located on the purchased building site, have been torn down to make room for building operations. About June 1 ground was broken. A steam shovel quickly removed the earth down to a depth of 40 feet where solid rock was encountered. Steam drills were then brought into use.

The new building will be three stories high, the foundation and frame work being so constructed as to permit the addition of more stories at a later date. It is expected that the new building will be ready shortly after January 1, 1914, for the Western Electric Company to begin the installation of a new 8,000 line local board and a new Toll board.

Digitized by Google

The Switchboard

Suggestion by J. A. Mathews, Inspector, Murray Hill Plant

"I WOULD suggest as the caption for the employees' section of *The* TELEPHONE REVIEW 'The Switchboard.' This title speaks for itself," writes Mr. J. A. Mathews, Inspector, Murray Hill Plant.

We agree with Mr. Mathews that the title speaks for itself, but are glad to remind him and all our readers that the "employees' section of *The* TELEPHONE REVIEW" consists of the entire magazine from cover to cover.

Contributions of any length are always welcome. Try to make this a busy "switchboard."

A Boost for the Advertising Department

A prominent business man recently complimented the Company on the clever circularizing initiated by us referring particularly to the enclosures with bills on the first of each month. Commenting on these and also on our newspaper advertising he remarked:

"The New York Telephone Company is pursuing the right course when it takes the public into its confidence with respect to its plans and progress, and its selling talks on the various uses to which the service can be put together with statements touching on the workings of its various departments are interesting and instructive and must result in increased business. I am of the opinion that other public service companies make a mistake by not pursuing a similar policy."

The subscriber further asked for a complete set of catalogued circulars for the purpose of studying their general makeup and arrangement.—C. F. McCORD, Local Com. Mgr., Passaic.

J. C. Municipal Band Plays by Telephone

Band concerts by telephone now seem to be in vogue. The *Jersey Journal* tells us that the Jersey City Municipal Band at a regular rehearsal was heard by friends in Newark, New York and Jersey City over the telephone by special arrangement.

Saves $80,000

A resident of New York City escaped a loss of $80,000 recently by making prompt use of the telephone. He brought home this sum of money after banking hours and during the night was awakened by an unusual noise.

He lost no time in telephoning the police who arrived in short order and frightened away a man who was attempting to break into the house.

The telephone is an investment which yields good sized dividends.

Could They Ring Her Bells From New York?

A lady in Kingston, N. Y., asked to have her telephone bells inspected. The trouble-man found the bells O. K., and upon asking her what the trouble was, she said that she hadn't had any trouble, but she was expecting a N. Y. City call and wanted to be sure that they could ring her bells from there.—L. D. FANCHER, Plant Dept., Kingston.

A Kind and Courteous Act of a West Operator

Miss E. Grossman, an operator, upon leaving the West Central Office one evening and waiting on the opposite corner for a car, noticed a very elderly lady walking back and forth, seemingly anxious and bewildered. Miss Grossman inquired if she could be of any assistance, whereon the lady stated she had left her daughter's home a half hour before, to visit an ice-cream parlor a short distance away, and not being familiar with streets in Albany, she had become confused and was unable to find her way back.

Miss Grossman immediately inquired if her daughter had a telephone. The lady said, "Oh yes, but she was visiting a neighbor when I left." It was suggested that perhaps the neighbor also had a telephone. The lady was invited to wait at the Central Office while inquiry was made —Miss Grossman going back with her. It was found that the neighbor had a telephone, and in five minutes the much-alarmed daughter of the wanderer came and was overjoyed to find her dear old mother safe.—(MISS) C. SCHUMM, Chief Operator, Albany.

Common Battery at Gowanda

At 8:15 P. M. on June 21, 1913, the new Gowanda common battery switchboard was cut into service and all lines working in the magneto board were cut with the new common battery board. Involved in the change were 168 subscriber lines, 415 stations and 18 trunk lines.

Immediately after the cut-over a number of inquiries were made by subscribers regarding the board and every one seemed pleased to think that they were to have a new and up-to-date telephone system.—C. W. LITTLE, Dist. Traffic Chief, Buffalo Sub.

Let His Store Burn to Save a Nickel

Here is a dandy story told by the Troy *Daily Times*. And what's more, it's true!—G. HAVER, Local Manager, Troy.

They're telling a joke on a merchant in the largest village in Rensselaer County, but the merchant cannot view the incident in the light of a joke. The merchant in question conducts a meat market. Like all up-to-date places he had a telephone installed, but soon tired of the number of persons who asked permission to "use your 'phone?" He solved the problem by having the telephone changed for a pay station, which enabled his customers to call him, but anyone using the instrument in the market was obliged to drop in a nickel. The merchant got in the habit of using other people's 'phones when calling on trivial matters. Recently he discovered a fire in his market and "unconsciously" he ran out to the nearest 'phone, half a block away, so that he could call up the fire department. When he returned the market was enveloped in flames, and it dawned upon him that much might have been saved had he dropped a nickel in his own telephone instead of using his neighbor's.

"The Voice With a Smile" a "Rift in the Clouds"

One of our farmer line subscribers was delinquent in paying his account and was called up by my office in regard to it, according to routine. The subscriber immediately wrote a letter enclosing the amount of the bill and apologizing for the delay, saying: "The three months at a glance calendar is gratefully received and you may tell the clerk who talked with me regarding my account that she has the upper motto well learned. It is a rift in the clouds that hang over us to hear such a pleasant voice."

"The upper motto" referred to was "The Voice with the Smile Wins."—C. A. WOOLSEY, Local Com. Mgr., Montclair.

"Couple-Couple"

One of my Albany Main operators reports the following instance which may be of interest to readers of *The* TELEPHONE REVIEW:

In response to her request "Number please?" the subscriber called for "Main couple-couple-4-1." The operator not understanding what the subscriber wished, again repeated her question and received the reply, "Main couple-couple-4-1." The operator still not understanding, used her routine phrase, "I do not understand it, will you give the call again, please," to which the subscriber replied, "Main 2-2-4-1. Don't you know that two is a couple?"—R. S. WILLIAMS, District Traffic Chief, Albany.

Digitized by Google

A Modest Request

Subscriber (Lady): "Will you please give me a complete list of the iron foundries in Hoboken, N. J.?"

Chief Operator: "I am sorry, but we are unable to do so."

Subscriber: "Why not? You have a Hoboken directory, haven't you?"

Chief Operator: "Are you trying to locate some one in Hoboken?"

Subscriber: "Oh, no—I'm going to move there week after next, and I thought if you'd give me the names of all the foundries, I'd *write* to each and see if I could get my brother a job—then he'd come along with me."

I thought this might do for *The* TELEPHONE REVIEW—it is an actual experience I had last Saturday. —F. G. CARNCROSS, Mgr. of School, Schenectady.

Poughkeepsie Man, Ill in Bed, Enjoys Concert by Telephone

"It was the sweetest music I ever heard," said Robert G. Graham, of 46 Carroll Street, Poughkeepsie, telling his friends how, from his bed at home, he heard over the telephone the Euterpe Club's concert at the Collingwood Opera House the night before. "I heard the whole show right here at home, even to the applause. It certainly was a fine treat, and I am deeply grateful to my friends for arranging it."

Mr. Graham, a Spanish War veteran and a well known insurance agent, is Secretary of the Euterpe and one of its most valuable members. Ill for about a year, he has recently been compelled to lie in a plaster cast. This uncomfortable position was forgotten last night when he heard his fellow clubmen singing the songs in which he had hoped to help them. Last year's concert was the first he had missed in years, and when it became apparent that he could not attend this year, arrangements were made with the New York Telephone Company to run a wire from the opera house stage to his bedside. At the Collingwood end a large horn similar to a reversed megaphone or phonograph horn and hitched to a common transmitter, condensed the sound and carried it in an even flow, and Mr. Graham listened to the familiar sounds by means of a head receiver.

With Mrs. Graham and a few friends, Mr. Graham heard the entire program and at its close thanked the members of the Club over the telephone and expressed the hope that he would be with them next year.—FRED L. BROWN, Salesman, Poughkeepsie.

Telephone Preserved Medical Ethics and Saved a Life

This is just another instance illustrating the fact that you cannot get away from the telephone:—

Yesterday afternoon, June 17, a telephone call was received at Albany from a surgeon in Elmira, stating that it was necessary in order to save a life to operate at the earliest possible moment upon a small boy in Elmira, but that the surgeon would not perform the operation without the consent of the boy's father, who was in Albany, attending the Centenary Celebration of the Knight Templars of New York State.

At the time the telephone call was received, the Knight Templars were in a parade several miles long, and all business in the City of Albany was practically at a standstill. A messenger boy was secured from the Western Union Telegraph Co., to go to the corner of State and Pearl Streets, and with the assistance of the police, to interrupt the parade when the Elmira Commandery passed that point. Within 55 minutes from the receipt of the call from Elmira, the man who was wanted was talking with the surgeon in Elmira.—G. C. DONNELLY, Chief Clerk, Traffic, Albany.

"Thank You" or "Please"

Referring to the item on page 94 of the April number of *The* TELEPHONE REVIEW, under the heading "Set the Example," one of our subscribers, who, by the way, is a Telephone Pioneer, suggests that our patrons substitute the word "Please" for the words "Thank you" when the operators' repetition is correct. He claims to have been using it for years with very good results and of course it is shorter.—L. M. SMITH, District Traffic Chief, Elmira.

(Our editorial referred to merely suggested the words "Thank you" or their equivalent. "Please" is a good equivalent. Now to have it adopted! —Editor.)

Was This a Case for the Plant Department or the S. P. C. A.?

A subscriber recently called at the Local Commercial Office and reported that there was a cat on the top of a telephone pole in front of her home, and she insisted that we send a man up immediately to have the cat removed as its precarious condition was very annoying to her.

We are not feeding the cat.—F. F. STUDOR, Chief Clerk, Commercial Office, Poughkeepsie.

Kingston Traffic

There is an "Antiseptic Laundry" in Kingston, and it is called all sorts of queer names by telephone subscribers. The other day, a lady called "Information," and insisted upon being connected with the "Anticipated Laundry."

Recently an Information Operator answered a call from a subscriber who said, "Central, there's a man on —— Street, who has a black horse, what is his telephone number?"

Kingston subscriber to Information Operator: Central, what's Mrs. Jones' number?

Information: The number of Mrs. John Jones is ——.

Subscriber: Well, hand it to the operator, hand it to the operator.

A lady recently called for a telephone number and the operator secured the desired party only to have him hang up after waiting about a minute. This happened several times until finally, the operator requested him to "hold the line." He replied in a very frightened tone, "I can't answer the telephone. My wife is out." He then put the receiver back on the hook, and the operator could not induce him to answer again.—G. O. MACNABB, District Traffic Chief, Kingston.

Timely Telephone Call Saves Young Lady from Asphyxiation

A young lady stenographer employed in the office of her fiance, a New York building contractor, owes her escape from asphyxiation to a telephone call.

As she had not returned home at 9:30 P. M., relatives notified her employer who called her on the telephone at the office, and after a few inarticulate words heard the receiver at the other end of the line fall with a crash to the floor. Suspecting that something was wrong, he summoned a policeman and they hastened to his office. There they found the young lady overcome by escaping gas.

As she had been unconscious but a few minutes, she was quickly revived and taken home none the worse for her experience.

Digitized by Google

Symbols of Protection

Ancient Egyptians carved over their doorways and upon their temple walls the symbol of supernatural protection; a winged disk. It typified the light and power of the sun, brought down from on high by the wings of a bird.

Mediæval Europe, in a more practical manner, sought protection behind the solid masonry of castle walls.

In America we have approached the ideal of the Egyptians. Franklin drew electricity from the clouds and Bell harnessed it to the telephone.

Today the telephone is a means of protection more potent than the sun disk fetish and more practical than castle walls.

The Bell System has carried the telephone wires everywhere throughout the land, so that all the people are bound together for the safety and freedom of each.

This telephone protection, with electric speed, reaches the most isolated homes. Such ease of communication makes us a homogeneous people and thus fosters and protects our national ideals and political rights.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

Digitized by Google

"Yes, Jim is away for a few weeks but I am WORKING MY TELEPHONE HARD and with its help I am doing Jim's work, too."

The Telephone Increases Capacity for Work

If you will take the telephone into complete partnership, "work it hard" and depend upon it as an important business ally, you can increase your capacity for work this summer and double your opportunities for pleasure.

The telephone is an active, live, wide-awake assistant of the progressive business man. It carries all kinds of messages, runs the errands, helps "cut the corners," brings information—in fact the ***harder you work your telephone,*** the ***easier will your work be.***

Suppose ***you*** "work ***your*** telephone hard" this summer and with its help enjoy both your work and your play to the fullest extent.

NEW YORK TELEPHONE COMPANY

Digitized by Google

THE TELEPHONE REVIEW

Vol. 4. No. 8 August. 1913

Digitized by Google

"Just Around the Corner" —By Bell Telephone

NEARBY and distant cities, towns and villages are "just around the corner" when you use Bell Telephone Toll Service.

The Telephone knits separate communities into one big neighborhood and in your business and social affairs all are easily within your reach.

Why should you waste your time, energy and money in traveling to points that are "just around the corner"—by telephone?

Don't Travel—Telephone!

Every Bell Telephone is
a Long Distance Station

NEW YORK TELEPHONE COMPANY

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV NEW YORK, AUGUST, 1913. NUMBER 8

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor

VOL. IV AUGUST, 1913. No. 8

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

R. M. FERRIS

Robert Murray Ferris

WHILE bathing at Siasconsett Beach, Massachusetts, on Sunday morning, July 13, Robert Murray Ferris was drowned.

Only the day before, Mr. Ferris had arrived at the beach to join his family for his annual vacation. Early on Sunday morning, having an engagement with a friend to go bathing, he left his cottage dressed in his bathing suit over which had been thrown a bathrobe. Not meeting his friend, Mr. Ferris entered the water alone, and as there was no one else on the beach at the time, there was no eyewitness to that which followed.

He was not missed until Mrs. Ferris went in search of him and of the children who had gone out with their nurse expecting to return to breakfast with their father. His bathrobe lying on the sand was the only clue that was found.

Mr. Ferris was born in Chappaqua, N. Y., in 1876—the year of the invention of the telephone, so that he was 37 years of age.

After graduation at the Massachusetts Institute of Technology with the degree of Bachelor of Science in 1897, Mr. Ferris took a minor position with the then New York and New Jersey Telephone Company.

His work at that time was characterized by the same comprehensive and constructive ability which distinguished it in after years, and led to his assignment to duties which both broadened his usefulness and gave him a wide experience.

The first work of importance that he performed was the study of electrolytic corrosion; he helped to install the first common battery switchboards in Brooklyn, and in 1902 was placed in charge of Fundamental Plans for the whole Brooklyn Plant. His work won the immediate attention of the company, and the results of his fundamental studies are still being followed.

Mr. Ferris was also one of the group of experts who were placed in charge of the installation of the first Pupin Coils in 1902.

Five years later, when Mr. J. J. Carty become Chief Engineer of the A. T. & T. Co., he was succeeded by Mr. Ferris as Chief Engineer of the New York Telephone Company.

On January 1, 1912, an entirely new office was created, that of Chief Engineer for all the companies in the Eastern Group, and Mr. Ferris was appointed to fill it, each of the individual companies in the group having an engineering department in charge of its own Engineer.

To have become one of the few great leaders in the world in his profession and to have won the place in the esteem and affection of his friends which he occupied, are the surest evidences that his already remarkable career would have been ever more brilliant and successful but for his sudden and untimely death.

Every one who became associated with Mr. Ferris recognized the force of his intellect and his strong and attractive character. He combined these qualities in such an unusual degree that the sense of loss to the companies of which he was Chief Engineer and to the profession at large has been overwhelmed in the personal grief of his associates.

IN order to express suitably the deep regret and sense of loss which the members of the Telephone Society of New York feel over the drowning of Mr. R. M. Ferris, Chief Engineer of the New York Telephone Company, and their former President, a special meeting of the Executive Committee was held on August 1. It was the unanimous feeling of the Committee that a brief statement of Mr. Ferris' connection with the Telephone Society of New York and an expression of bereavement should be published in *The* TELEPHONE REVIEW.

Mr. Ferris was a member of the Society from December, 1899, to the time of his death, was long active in its management as a member of the Executive Committee, and was its President from 1906 to 1908. In addition to the interest which he took in the Society's affairs as an officer, he contributed two papers—one in January, 1906, on "Theory and Practice in Telephone Engineering," and the other in March, 1910, on "The Importance of Efficient Toll Lines." He was also a frequent speaker in the discussion of papers before the Society.

In addition to the realization that they have lost a true friend, which all members of the Society who knew Mr. Ferris personally will feel, the Society itself suffers an irreparable loss, in that it will be deprived of the unfailing support which he has always given in connection with both the material and intellectual sides of the Society's activities.

AS a majority of the members of the Executive Committee of the N. Y. Telephone Co. are away on vacation, no formal action by the Company can be taken until their return.

Digitized by Google

The To-Be Successful Ones Attract Attention

TELEPHONE employees are always interested in everything Mr. Theodore N. Vail writes and says, whether upon telephone subjects or not.

An address possessing unusual interest, because it treats of the elements of success in whatever vocation may be selected for one's life work, was delivered by Mr. Vail at the commencement exercises of the graduating classes of Lyndon Institute and Lyndon School of Agriculture, Vermont, on June 20, 1913.

We print the address in full in this issue, and while nothing we could say would add to its value, we may be permitted a few observations regarding the application to us who have entered upon our business life, of what Mr. Vail says to those who are upon the threshold.

After reading Mr. Vail's address, it would be well for each of us to follow the advice of the Irish Drill Sergeant to his awkward squad:—"Step out here and take a look at yourselves."

If we were to view ourselves and our work impersonally, we should undoubtedly find that what Mr. Vail said to the graduates would apply to us with equal force.

An eminent philosopher said many years ago that each one launches his bark upon an uncharted sea over which no one has sailed before him.

Every bark must reach its haven, or be wrecked, and no one of himself possesses the knowledge of how to succeed. This knowledge comes only from experience, and the experience of others is profitable when made use of.

To be successful depends upon one's conception of his work and his attitude towards it. As Mr. Vail says:—"The to-be successful ones attract attention—it is never necessary to have attention called to them."

Advertising Contest

THE successful competitors in the Advertising Contest which closed July 15 were as follows:

Prizes

First Prize, $10, to Fred. Dykeman, Supervisor Plant Accounting Department, 24 Walker Street, Manhattan, for his suggestion, "The Voice is Mightier Than the Pen."

> Very often, in your social correspondence, you write: "I wish you were here to tell you all about it." The difficulty of expressing thoughts in writing, and the cogitating over what to write next, make letter writing one-sided and the personality of the writer is lost.
>
> You do not grope in the dark when telephoning; one question or answer leads to another; thoughts flow freely, and the personality of both speakers has full play.
>
> Many of your friends have telephones and would much rather talk to you than write to you.
>
> Illustrated by a young woman telephoning in her home, pen and writing paper lying discarded on her desk.

Second Prize, $5, to Wm. A. Wagner, Division Plant Engineer's Office, 24 Walker Street, Manhattan, for his suggestion, "Leave Them Laughing When You Say 'Good-bye.'"

> A business man, just starting on a trip, is surrounded by his family at home, and they are all laughing with anticipations as he is telling them that every day he will call them up by long distance telephone and have a chat.
>
> Think of the pleasure of talking to your family every day while you are away; this daily talk makes anxiety give place to happiness as nothing else in the world could do.

Third Prize, $3, to P. B. Nash, Traffic Engineer's Office, 18 Cortlandt Street, Manhattan, for his suggestion, "In the Shadow of the Telephone."

> An active street scene, showing the hot and uncomfortable pedestrians, on a sultry summer day. On one side and for the full height of this picture, a standard desk telephone set is represented as casting a shadow across to the other side, where a business man, in the cool, comfortable shade of the telephone, is transacting his business over the instrument on his desk in his office.

Honorable Mention

Honorable Mention has been awarded by the Committee as follows:

Geo. W. Hoffman, Evening Manager, Lenox Central Office, Manhattan.

> Sketch of children using the telephone. Educate the young people to use the telephone. Let them have their friendly talks, and by so doing, get the habit of telephoning and learn its value by experience.

L. Dwight Barrows, Engineering Department, A. T. & T. Co., 15 Dey Street, Manhattan.

> Do you fully appreciate your telephone? Do you stop to think what it means when we say "Every Bell Telephone is a Long Distance Telephone?"
>
> What should interest you in that is that *your* telephone is one of the family of over seven million and a half long distance telephones in over 70,000 places. The advantages and capabilities of the one instrument you may have are as great as of any of the others, for it enables you to talk to your next door neighbor and to persons thousands of miles away.

As we announced last month, this contest has been discontinued for the present, but due notice will be given when it is to be resumed.

Telephone Reduces Cost of Living

ALL the arguments in the world will not stand against a practical demonstration, and the few remaining opponents of "shopping by telephone" will have to concede their error in the face of the evidence furnished by a meat market and its patrons in Montclair, N. J.

In another column we print a communication from C. A. Woolsey, Local Commercial Manager, Montclair, describing how a meat market has been able, by inducing the majority of its customers to order by telephone, to dispense with four wagons and the services of three men, and its customers have not only been able to obtain the advantage of more prompt delivery, but also to effect a material reduction in the cost of living.

It is only reasonable that the public should pay for any additional expense they place upon a merchant in the way of ordering goods and making deliveries, for naturally all of this expense has to be added to the original cost of the goods and the normal expense of doing business, before a profit can be figured by the merchant.

On the other hand, it is only reasonable, however unusual it may be, for a merchant to give his customers the benefit of any economies that he can introduce in serving them.

It is obvious that if customers will place their orders by telephone, they can be concentrated and handled more systematically, economically, and expeditiously, and if the merchant will reduce the cost of his goods proportionately, he can make the same profit as heretofore, while the high cost of living will be reduced.

How To Help

JUST as we were closing our magazine for July we received a letter upon a very interesting subject in which the writer stated that he could get some good photographs if we cared to use them and would let him know. It was too late, however, to communicate with him and arrange to obtain the pictures, whereas if they had accompanied his letter, subject to approval, they could have been used.

This illustrates a point which we have mentioned before concerning articles and photographs. We hope that all our readers will understand that they may send in articles and photographs direct to the Editor at any time. It is better to send them in on the chance of their being used than not to send them in on the chance that they will not be wanted.

Digitized by Google

The New Harlem Commercial Office

And the Exchange Districts of Harlem, Morningside and Audubon

By T. P. WARD, Local Commercial Manager

IN order to maintain the high standard of efficiency established by the Company, and to provide the public with every possible convenience, the local business office of the New York Telephone Company, Harlem Branch, was transferred on July 14 from 127 West 125th Street to new quarters on the ground floor of the building at 109 West 125th Street. The work of removal was carried on during the afternoon and evening of July 12, and the new office opened at 9:00 A. M., Monday, July 14, complete in every detail. This was accomplished mainly through the untiring efforts of the Real Estate and Installation Departments, and the various other departments working in conjunction with them. The telephone played its important part in the making of arrangements and their final completion, and it is worthy of note that not a single workman was on the floor after 9:00 A. M.

The Public Office in the front is large and well lighted, containing a counter of finished quartered oak, the Cashier's cage, and six modern booths with sliding doors, the floor being of ceramic tiling with the universal seal worked in and a border of blue bells. The walls are attractively hung with pictures. A Public Telephone Operator is in attendance from 9:00 A. M. to 10:00 P. M., and as the office is on the main street in Harlem, this is one of the busiest Public Telephone Stations in the upper section of the city. A unique feature is the use of three disappearing tables for use of the Counter Agents. These are built and equipped with slides so that when not in use they may be run under the counter out of sight. To do away with the toll file cabinets, special toll desks were designed, containing drawers specially fitted for toll checks, sufficient space being provided to hold the current checks and those one month old. For the balance of the toll checks which it is necessary to file, special drawers were fitted in the counter.

Back of the space reserved for the public, is a well-equipped office for the working force.

When planning for this removal, it was thought advisable to provide an office which would permit of the entire working force being located on the ground floor, instead of on a separate floor as at the former location—thereby facilitating the work and at the same time providing for the more efficient and prompt handling of our subscribers and patrons who call at the office.

TEN CENTS A DAY
WILL EQUIP YOUR HARLEM HOME WITH
TELEPHONE SERVICE
CAN YOU AFFORD TO BE WITHOUT THE COMFORT CONVENIENCE AND PROTECTION OF TELEPHONE SERVICE?
OUR COMMERCIAL OFFICE WILL GIVE YOU FULL INFORMATION
NEW YORK TELEPHONE COMPANY.
MORRIS REDLER
NEW YORK TELEPHONE CO.
Leonard's

NEW HARLEM LOCAL COMMERCIAL OFFICE, 109 WEST 125TH STREET.

The front windows are decorated with the Company's regulation signs and seals, advantage having been taken of the splendid opportunity afforded for window display. A billboard sign 50x 30 feet has been placed on the top of the building, painted—

TEN CENTS A DAY
Will Equip
Your Harlem Home
With
TELEPHONE SERVICE
Can you afford to be without the comfort, convenience and protection of telephone service? Our Commercial Office will give you full information.
NEW YORK TELEPHONE CO.

This sign is lighted at night by a battery of electric lights and the public can read the advertisement a considerable distance away. From the inquiries made, and the number of contracts secured up to the present time, there is no doubt but that this form of advertising is profitable.

The area covered by the Harlem Commercial Office extends north from 103rd Street East of Fifth Avenue, and north from 110th Street West of Fifth Avenue, to the Ship Canal, or 225th Street, and from the Hudson River on the West to the Harlem River on the East.

Prior to 1901, the nearest contract office where information could be ob-

Digitized by Google

INTERIOR VIEW OF NEW HARLEM LOCAL COMMERCIAL OFFICE.

tained as to telephone rates, etc., was located at 38th Street. The northward trend of telephone users necessitated the opening of an office further uptown.

On March 21, 1901, a small room was taken on the third floor of the Hamilton Bank Building at 215 West 125th Street and fitted up as a Contract Office. At that time, the number of telephone stations in the Harlem District was 1553. On March 20, 1913, twelve years later, there were 62,901 telephone stations in the same area, this being the largest number of stations in service in exchange districts covered by one Local Commercial Office.

This tremendous increase in stations is due largely to the phenomenal growth of the service in apartment houses in this territory, in which there is a population of approximately 210,000, showing a telephone development of thirty stations per 100 of population. In the space of four square blocks in the Audubon section twenty apartment houses have been built, for which orders providing for over one thousand telephones have been taken. One of these is "The Riviera," containing 153 apartments, with a telephone in each. This district is one of the most highly developed apartment house sections in the world.

In 1901 a law was enacted prohibiting the erection of non-fireproof buildings of more than six stories which brought about a peculiar condition in the building business, for in order to build seven-story non-fireproof apartments prior to the law going into effect, it was necessary for builders to file plans for houses within a few months. The rapid building development which followed precipitated an unusual growth of stations, and to meet the situation the Telephone Company planned two new exchange buildings, one at East 124th Street, near Lexington Avenue, to replace the old Harlem Exchange, and one at West 124th Street, between Seventh and Eighth Avenues, called "Morningside."

In August, 1902, the Harlem Contract Office, having outgrown its quarters, moved to the ground floor of the Morningside Exchange Building, and when the new Morningside Exchange was "cut in" on October 18, 1902, there were 1,875 lines and 3,215 stations, and in the New Harlem Exchange 1,789 lines and 2,560 stations.

In 1904, we had a total of 12,644 stations and in 1906, 25,884—more than double. This necessitated the opening of a new exchange, and on June 19, 1907, the Audubon Exchange was opened with 3,023 lines and 9,074 stations. Since then there has been a steady growth of telephones in Harlem, resulting in the amazing figures shown above. On July 1, 1913, there were 63,552 stations in service.

The Contract Office was moved in October, 1906, from the Morningside Exchange Building at West 124th Street to 129 West 125th Street, in order that the public might be better accommodated by having an office on the main street.

The office at that location served its purpose for but one year, when it was found necessary to secure more spacious accommodations; these were found at 127 West 125th Street, where the office located in October, 1907, and where it remained up to July 12 of the present year.

WHERE THE WORK IS DONE.—NEW HARLEM LOCAL COMMERCIAL OFFICE.

Digitized by Google

From a force of five in the Contract Office in the year 1901 we have grown in numbers to a force of forty-two in the present Commercial Office, thus keeping pace with the growth of the system and times.

In planning the new Harlem Commercial Office due thought and consideration were given to the great growth experienced in this territory in past years. It is felt that the new office can be depended upon to serve the mutual interests of the Company and the public for many years to come.

"The attractive office invites—"

"The voice with the smile wins—"

The Co-Operative Spirit--Highest Evidence of Loyalty

By E. A. Oborne, Local Commercial Manager, Flatbush

WHO among the readers of *The* TELEPHONE REVIEW is not hoping that the days to come will bring to him a greater measure of prosperity? Who is not ambitious for advancement? And yet, is it not a fact that most of us are waiting for the lightning to strike and doing little to help ourselves to be other than cogs in the wheel, where we were placed and have since grown rooted fast?

Is it not plainly evident that what is to the Company's interest is of vital interest to us all, and that our individual success while in the Company's employ is contingent upon both faithful service and the Company's continued success? Therefore, should we not endeavor to justify the faith placed in us by taking advantage of every opportunity of doing or saying some good thing to show our co-operative interest whenever opportunity occurs?

Various articles have appeared in *The* TELEPHONE REVIEW during recent months urging co-operation particularly along the line of securing new business. A little more energy on the part of our Sales Force, it goes without saying, cannot fail to result in more and better business. The trained salesman is presumed to be able to see prospective business, where to the untrained eye there would not be a possible chance. Therefore, I venture to say many valuable leads are lost because of the fear of being thought visionary, which has often prevented employees in other Departments from communicating their ideas to the Commercial Department.

It is not necessary to have a sure sale before communicating with the Commercial Department, and knowledge of rates need not enter into consideration. Just keep your eyes and ears open and send in your suggestions as to where, in your opinion, there is a possible chance to talk business.

There is no question whatever about the desire to do something of a practical co-operative character, and in this connection I know of very many individual cases where employees in other departments have informed the Commercial Department of leads, which frequently have resulted in an increase in the Company's revenue. On the other hand, the Commercial Department have through their outside Sales Force, frequently observed and reported to the proper department cases of outside Plant or other telephone equipment not up to the standard, due to deterioration or accident, which required attention to the end that maintenance troubles and complaints might be forestalled.

A short while ago the Wire Chief and Local Commercial Manager of the Flatbush Local District, Brooklyn, agreed that it would be interesting to see what might be accomplished by urging outside forces to watch for matters which would be of interest to the other departments, to keep a record of such reports, and results obtained therefrom.

The Wire Chief's men were urged to keep their eyes open for opportunities for new or better grade business and in turn the Commercial Sales Force have been noting and reporting all matters of interest to the Wire Chief, such as, station troubles, wires chafing in trees, wires in way of building construction, wires loose, improperly fastened, cable troubles, etc.

In one month this co-operative effort resulted in twenty-eight possible prospects reported to the Commercial Department, from which the following new business was secured: One direct line subscriber, one contract regraded to higher class, four extension stations and one extension bell.

The Commercial Force reported thirty-eight cases which, after investigation, were found to require more or less attention and twelve other matters which were found to concern foreign circuits, such as telegraphs, fire alarm lines, etc., which were also investigated, temporarily cared for and the other companies notified.

Organization Changes

Long Island Division

Commercial Department

A new Local Commercial Office known as the Long Island City Commercial Office has been established at Bridge Plaza North, Long Island City, and will handle commercial work in the Astoria, Hunters Point and Newtown Central Office Districts.

O. A. Keenan, Local Commercial Manager, transferred from the Bushwick Local Commercial Office to the Long Island City Commercial Office, reporting to J. F. O'Hea, District Commercial Manager.

E. F. Reuter, appointed Local Commercial Manager, Bushwick Local Office, reporting to J. F. O'Hea, District Commercial Manager.

The commercial work in the Newtown Central Office District will be handled from the Long Island City Commercial Office instead of the Flushing Local Office as heretofore.

New Jersey Division

Plant Department

Harry Williams, formerly Lineman, Newark District, appointed Line Foreman, Newark District.

Wm. Wismer, formerly Foreman of Repairs, Newark District, Deceased.

Jos. A. Mansfield, formerly Line Foreman, Newark District, appointed Foreman of Repairs, Newark District.

Manhattan-Bronx Division

Commercial Department

A new Commercial Office to serve the Tremont, Kingsbridge, Williamsbridge, Woodlawn and Marble Exchange Districts, has been opened at 453 E. Tremont Avenue, in charge of P. E. Mahony, Local Commercial Manager, reporting to the Bronx District Commercial Manager.

J. W. Jones, reporting to the Bronx District Commercial Manager, appointed Local Commercial Manager in charge of the Melrose Local Office, 366 East 150th Street, handling the Melrose, Westchester and City Island Exchange Districts.

Western Division

Commercial Department

L. D. Brainard appointed Local Manager, Dunkirk, reporting to District Manager, Jamestown, vice G. H. Bernard, transferred to office of Division Commercial Manager. Mr. Bernard will handle Western Union matters, and report to the Chief Clerk.

Plant Department

George H. Ernst, formerly District Foreman in charge of maintenance of plant in the Lockport Field, appointed Special Inspector reporting to Division Construction Superintendent, Buffalo.

Louis F. Lang, Wire Chief at Howard, Abbott and Crescent Exchanges, Buffalo, appointed District Foreman in charge of maintenance of plant in the Lockport Field.

Central Division

Traffic Department

Miss Mabel J. Cornell appointed Chief Operator at Ithaca, vice Miss Grace Ryan, resigned.

Miss Elizabeth Drake appointed Evening Chief Operator at Ithaca.

N. F. Latham appointed Assistant Traffic Chief at Elmira.

Plant Department

D. Toomer, General Foreman, Auburn, transferred to Syracuse as Supervising Foreman, reporting to the Supervisor of Aerial Construction, Syracuse.

R. T. Sadler, Central Office Inspector, appointed District Inspector supervising all maintenance work in Elmira District.

F. P. Mahan, Station Inspector, appointed General Foreman supervising all installation work in Elmira District.

I. D. Simpson, General Foreman of Maintenance, Elmira District, assigned to other duties and reports to the District Superintendent, Elmira.

Digitized by Google

New Commercial Office in North Tonawanda

By E. H. Gailor, Local Manager

A NEW Commercial Office was recently opened to serve Tonawanda and North Tonawanda, known throughout Western New York as the Twin Cities. It is located on the ground floor of the new Sweeney Building, erected by James S. Sweeney at the corner of Sweeney and Webster Streets, North Tonawanda, an excellent location owing to the fact that it is almost on the boundary line between the two cities.

It was decided to open the new office to the public on the evening of June 16, when a reception was held, in which the other tenants of the building participated. The entire building was thrown open and about three thousand people attended, among them Mayor and Mrs. Rafter. Many Company officials from Buffalo were also present.

A band concert was held outside, refreshments were served, and souvenirs distributed.

Many pleasing comments were heard complimenting the company on its fine office equipment and convenient location.

The accompanying illustrations give a good idea of the building and the new office.

SWEENEY BUILDING, NORTH TONAWANDA,
In Which the N. Y. Telephone Co.'s New Commercial Office for the "Twin Cities" is Located.

BEHIND THE COUNTER—NEW COMMERCIAL OFFICE, NORTH TONAWANDA.

How Bell Service Helped in One of North Tonawanda's Big Lumber Fires

ON Sunday, July 27 at 12:45 P. M. fire broke out in the lumber yards of A. Weston & Son at North Tonawanda. The flames spread rapidly, licking up pile after pile of white pine.

When it was seen that the local fire department would be unable to cope with the blaze, the Tonawanda fire department was called and responded quickly. They, too, were unable to stop the progress of the fire. Then the city of Lockport, whose water supply passes through North Tonawanda, was asked to aid by pumping water into the local mains. This increased the pressure from 50 to 75 pounds. This, too, was of no avail.

By this time it was apparent to the city officials that unless something was done very quickly the entire waterfront and large manufacturing district along the Niagara River would soon be in ashes.

At 2:30 a Bell telephone message was sent to the Buffalo Fire Chief, eleven miles up the river, asking that a fire tug be sent to prevent a general conflagration. This he readily agreed to do and in less than an hour, after a record run down the Niagara River, the fire tug "Hutchinson" was pumping tons of water into the flames.

Within a very short time after the arrival of the tug the fire was under control, but not until 9,000,000 feet of white pine lumber, covering 5 acres, had been reduced to ashes. In addition to the lumber loss, 20 freight cars,

Digitized by Google

mostly empties, were destroyed, telephone and telegraph lines were down and railroad ties were burned for a distance of blocks.

As soon as the heat had died down, the New York Telephone Company had twenty men on hand with large reels of cable to replace that destroyed —so by nightfall subscribers in that section were receiving service as before.

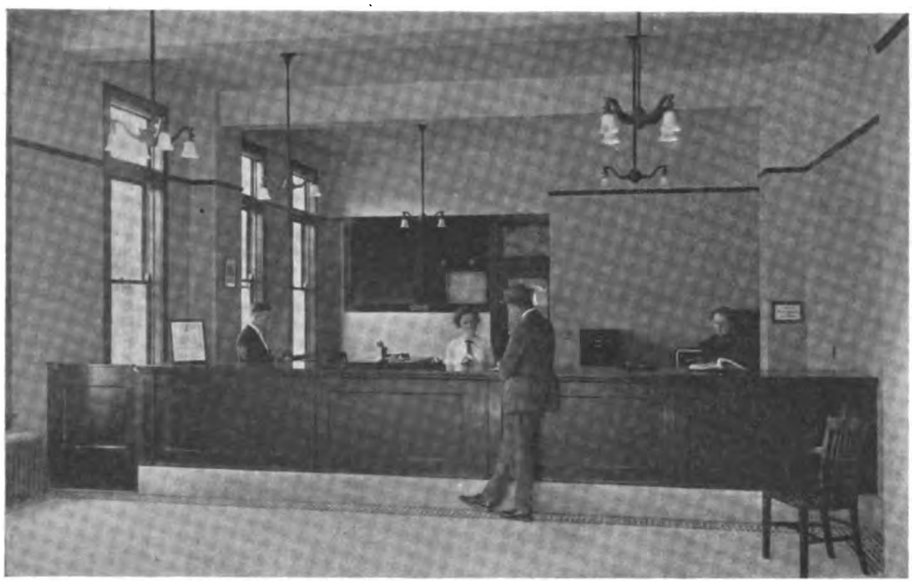
The operators, too, did their share in fighting the fire. About two o'clock the Superintendent of Water Works called the Local Manager at his residence and stated that the pressure was low due to the fact that it being a hot day a great many people were using their garden hoses for sprinkling purposes.

He asked that the operators call the subscribers in the residence section and request them to use as little water as possible until the fire was out.

This was done and the Superintendent of Water Works afterward expressed his appreciation for the girls' good work.

Value of "Long Distance"

THE following letter is doubly interesting, first because it was unsolicited and shows the newly-awakened appreciation of the telephone on the part of the writer, and, secondly, because it embodies the strongest of all arguments—a practical demonstration of the efficiency of the telephone in a way that has not been utilized as extensively as it might be to the advantage of subscribers:



GENERAL VIEW OF NEW COMMERCIAL OFFICE, NORTH TONAWANDA.

THE TRANSFER LUMBER & SHINGLE CO.

Red Cedar and White Cedar Shingles, Fir Porch Flooring.

Red Cedar and Spruce Bevel Siding, Spruce Factory Lumber.

North Tonawanda, N. Y., June 27, 1913.

MR. E. H. GAILOR, Mgr.,
Bell Telephone Co.,
North Tonawanda, N. Y.

Dear Sir:—

Late yesterday afternoon I had planned on starting for Charlotte, Michigan, a point about 375 miles distant, but a few minutes before train time, it occurred to me that it might be possible to transact the business necessary by getting a quick connection on the telephone. Your operator got my party in about five minutes and after two minutes' conversation (cost $2.00), I made an adjustment of the business in question, saving me about $30.00 traveling expense and one day's time.

Permit me, therefore, to compliment you on this service and to advise that we will use your Long Distance Service whenever possible.

Yours very truly,
F. A. HOFHEINS, President.

This letter was used as an advertisement in the Tonawanda paper with excellent effect.

Telephone Float in Independence Day Parade

THE business men of Warsaw, N. Y., decided to commemorate Independence Day by a big celebration, including an elaborate street parade. All the business interests in the city co-operated, and the newspapers gave their encouragement.

The New York Telephone Company entered a float in the parade, which was designed to feature the universal character of Bell Service. In the main, it consisted of a large bell suspended between telephone poles, which were equipped with cross arms and wires; the wires terminated in a one-position switchboard at which one of the company's operators was seated, with two messenger boys in uniform standing by. Six pedestals carrying potted palms were placed in the float, and on the corner pedestals were placards reading "north," "south," "east," and "west."

The Local Manager, Mr. J. E. Jennings, designed the float, which was greatly admired and commented upon by the large crowd that witnessed the parade.

N. Y. TELEPHONE CO.'S FLOAT IN INDEPENDENCE DAY PARADE, WARSAW, N. Y., 1913.

Digitized by Google

How East Rochester Happened

A New Village on the Bell Telephone Map

By G. S. LORD, Resident Agent, East Rochester and Fairport

ONE day in June, 1896, a passenger train on the main line of the New York Central & Hudson River Railroad stopped in the country at a location about eight miles east of Rochester. Several gentlemen got off the train and strolled across the fields. The locality interesting them was the area between the Mandeville & King Seed Farm on the west and the Lincoln Road on the east. They were looking for a site for the Merchants Despatch Transportation Company's shop, which at that time was located in Rochester—their thought being to find some point outside of the city line where there was more room for growth and a chance for the working man either to own his own home or rent cheaper than he could in the bigger city.

ADMINISTRATION BUILDING, MERCHANTS DESPATCH TRANSPORTATION CO.'S BIG EAST ROCHESTER SHOPS.

Founding of Despatch

Mr. Walter A. Parce, of Fairport, who at that time owned the land which was under consideration, through some source learned of the proposed removal from Rochester to this new locality and after a conference agreed to furnish about forty acres of land to build the new shops on and take several thousand dollars worth of stock himself.

The Vanderbilt Improvement Company was organized and the boom of Despatch, or as it is now called, East Rochester, was on and the growth has been phenomenal, there being no town in the state showing such a growth in the same length of time.

The Despatch Hotel was the first building to be built and May 29, 1897. a barbecue was held and the sale of building lots began. As an inducement to buyers the hotel was to be given as a prize. The New York Central & Hudson River Railroad ran free trains that day to and from Rochester. About 10,000 people were there and upwards of 1,000 lots were sold, and the corner stone of the Merchants Despatch Transportation Company's building was laid.

Growth and Development

In 1900 there were 300 inhabitants living there and numerous buildings were under construction.

The Brainerd Manufacturing Company was the second manufacturing plant to come to Despatch, which was in about 1899. Since then the Foster-Armstrong Piano Company, Branch of the American Piano Company, has built an immense plant and located there. Since the year 1900 the town has grown at the rate of an average of about 250 people a year until now it has a population of about 4,000, and the prospects for the future are still very bright.

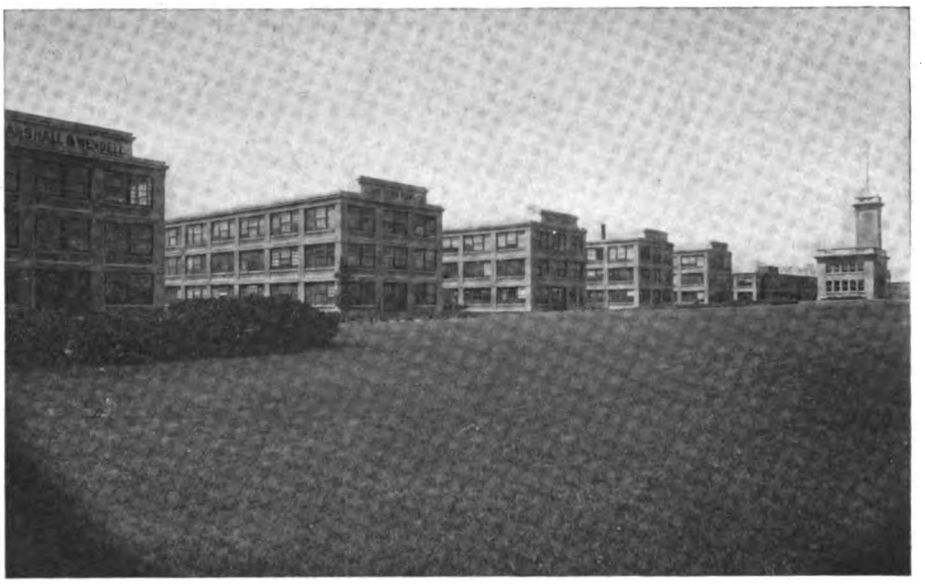
East Rochester

Despatch was never incorporated, but in October, 1906, the name was changed to East Rochester and it was then incorporated under that name. East Rochester is a manufacturing town, the two large manufacturing plants being the Merchants Despatch Transportation Company, employing about 1,200 men with a payroll of about $30,000 a week, and the Foster-Armstrong Company, Branch of the American Piano Company, with about 1,000 men, payroll about $17,000 a week. The Brainerd Manufacturing Company employs 75 men; the Ontario Drill Company, 50 men; Bown Brothers, 35 men; Fryatt Department Store, 30 employees; Despatch Light, Heat & Power Company, 20 employees; and the Pierce Oil Company, 10 employees. The town has electricity, water and sewer; also, is located on the main line of the New York Central & Hudson River Railroad, and the Rochester, Syracuse & Eastern Trolley line.

MAIN BUSINESS BLOCK AND STREET IN EAST ROCHESTER.

Digitized by Google

Up to the year 1913 the telephone situation in East Rochester was practically what it was when the town was first organized, the Bell System serving only about 15 stations and these by rural lines from Fairport, with the exception of the Merchants Despatch Transportation Company, Foster-Armstrong Company and Bown Brothers, which were being served from Rochester. About August 1, 1909, East Rochester was first considered by the Bell Company of Buffalo, but it was not thought feasible at that time to build the construction necessary to serve the town. After the New York Telephone Company took over the Buffalo Bell System, the development of this town was again taken up, but it was found impracticable to start work toward an Exchange for East Rochester until November, 1912.



VIEW OF EAST ROCHESTER PLANT OF FOSTER-ARMSTRONG PIANO COMPANY.

Central Office Opened at Promised Time Despite Unforeseen Difficulties

On November 12, 1912, a franchise was secured by this Company for the required construction, space was rented for the Central Office, and on November 19 work was commenced. At this time there was practically no New York Telephone construction in the town. Underground was laid, poles and cable were erected, and this exchange was opened January 21, 1913, with a three-position board, and on January 25 about 225 stations were being served. One week later the Merchants Despatch Transportation Company's Private Branch Exchange was installed with eleven extensions. When the promise was made by the New York Telephone Company to the people of East Rochester to construct a central office and locate an exchange area in their town, plant conditions were such as warranted this agreement. But on January 3 and 7 the biggest sleet storms that Western New York had ever known took down miles and miles of toll lines and wiped out entire plant conditions in some exchanges. After these storms a conference was held and it was still decided to keep our agreement with the people of East Rochester and open up the exchange at the promised time—the District Plant Department being big enough and so efficiently organized as to enable them to contend with both conditions. During the days that followed the big storm, it was a very interesting sight to watch the Plant men from the different departments setting poles, running cable, putting in underground, running subscribers' drops, and installing instruments all at the same time. Much credit is due to Mr. Helling, Superintendent of Aerial Construction; Mr. Brereton, Supervising Foreman; Mr. Lamb, District Engineer; Mr. Mayo, District Assignment Clerk; Mr. Bruce, District Equipment Supervisor, and Mr. Benedict, District Traffic Chief.

In the short time the Plant Department were building this exchange, there were installed 400 feet of Exchange Subway, Two Manholes, 636 feet of Subsidiary Ducts, 422 feet of 400-pair Underground Cable, 755 feet of 100-pair Underground Cable, 4,825 feet of 100-pair Aerial Cable, 8,243 feet of 50-pair Aerial Cable, 4 100-pair F. X. Terminals, 1 50-pair Fuse Terminals, 4 26-pair Fuse Terminals, 27 14-B Terminals, 11 pair 42-14-C Terminals, 16 pair.

"Co-Operation"

"Co-operation in the Western Division" was the force that enabled this work to be completed on time. Not only were the telephones all installed and working, but a number was assigned to each subscriber and each subscriber received a special directory giving all the changes, both for the new East Rochester Exchange and the Fairport reassociation, and in addition was supplied with the Rochester Special Directory with their new East Rochester numbers appearing therein. More than ordinary credit is due to the Division Directory Department for completing their records and arranging to have directories mailed to subscribers promptly upon the opening of the new exchange.

At the present time, there are being served from the East Rochester Exchange, approximately 300 stations and prospects bid fair to close the first year meeting the approximate estimate for same, 350 stations.

If Our Ancestors Had Had Telephones

THE telephone seems to be a favorite subject with writers of humor who take constant delight in employing their imaginative genius to point out the various uses of our great inventions.

Anthony H. Euwer in the New York *American* writing on "Wonders of the Universe," gives us some pertinent and humorous advice on how to use the telephone and mourns the fact that the ancients were unable to enjoy the advantages of this convenience.

Mr. Euwer concludes his article with the following hypothetical remarks:

What changes might have taken place in the world's history, had the telephone received earlier attention, we can now but vaguely approximate. If Jonah, after his sensational disappearance, could have established immediate connections with his friends in Nineveh, a whaling expedition could have set forth to recover the kidnapped prophet without further delay.

If he'd had a telephone, Paul Revere might have saved himself all that wild night ride by sitting down and ringing up all the farmers from their beds, and that shot might have been heard around the world three hours sooner, at least. Does any one suppose that Sister Anne would have spent all those hours of agony on Blue Beard's tower looking for succor if she could have called up a suitor to speed with all haste to the rescue of her darling sister? And little Red Riding Hood, had she dashed to the telephone the instant she discovered the old wolf's perfidy, might have lived to become a dear old granny herself and tell the events of that terrible day to her own grand and great grand children.

But no, now that I think of it, perhaps 'tis just as well we didn't have it sooner—history would have been utterly ruined with a telephone.

Digitized by Google

Warm Weather and How to Deal With It

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

AS the summer approaches the question is frequently asked, "By what means may the uncomfortable and sometimes dangerous conditions caused by hot weather be avoided?" In reply it is usually advised to keep as cool as possible, abstain from improper food and particularly from alcoholic drinks, and avoid undue exercise. While these are valuable suggestions, it will be of interest to know a little more fully why specially depressing influences are present in hot weather and what constitutes the protection against these conditions.

Cold weather is rather stimulating and acts as a tonic to the system, while warm weather is quite the reverse, for it is enervating and relaxing, and unless we are in good physical condition, it is apt to cause depression and lead to other uncomfortable conditions. Furthermore, warm weather is very destructive to food stuff and other products, as decomposition rapidly ensues, for germs or bacteria multiply much faster when the temperature is high.

Some misconception exists as to the direct cause of the prostration which occurs during the summer months and which may range from a slight feeling of depression to a condition which involves considerable danger. It is commonly believed that the more serious cases are generally due to the direct rays of the sun or "sunstroke," whereas it is really more often caused by a continued high temperature without special regard to exposure to the sun rays, and is appropriately termed "heatstroke."

Perspiration, a Protection

Nature goes far to protect us against excessive heat as it does against everything else that is a menace to our health. In this instance it extends protection largely through the activity of the sweat glands in the skin, for in hot weather they abstract an enormous amount of water from the blood which upon reaching the surface of the skin becomes rapidly evaporated and cools the body and in this way aids in keeping it at its normal temperature of about 98½ degrees (Fahrenheit), although the temperature of the air may be much higher. No better illustration of this can be given than that which occurs in connection with the work of a "stoker" or "coal heaver" in the hold of a steamship.

These men are often exposed to a temperature of 125 degrees or more, yet by profuse sweating they are able to maintain the normal temperature of the body. Still there is a limit to the equilibrium which nature is able to maintain in this direction, for if exposure to excessive heat is prolonged the temperature of the body cannot further be controlled and will quickly rise, and may in some instances be followed by a fatal heat stroke; for this reason the men just referred to are allowed to work below only for a short period at a time and every practical means of supplying fresh and cool air to this part of the ship is made use of.

Cases of prostration are not so apt to occur on the first day of a heated spell, for then the resisting power of the body is better able to overcome the effect of this depressing influence, but following this the number of cases rapidly increase.

Breathing and Fresh Air Essential

The danger of overcrowding, insufficient air and other unsanitary conditions during the summer months will be easily understood, for they add greatly to the depressing effect of the heat. It is for this reason that a large majority of cases of heat prostration occur in the tenement house districts.

Abroad the public have long ago learned the value of providing within their municipal boundaries spaces which act as breathing places and which in various ways are made sufficiently attractive and convenient to bring the poorer classes away from their unhealthy environments in order that they may secure at least temporary relief from the depressing influence of the summer months.

A practical and permanent way of avoiding the unpleasant effects of hot weather in the large cities and one which may be taken advantage of even by the poorer classes is residence in the suburbs; the value of this cannot be too strongly presented, particularly where there are children in the family, for at least fresh air and space may be secured in this way. The expense is no greater, and the very effective means of transportation which are now available make it practical and easy to live some distance from the workshop.

Careful Selection of Food and Drink

There is much that we can do to relieve the discomfort of hot weather in the way of a careful selection of food and drink in order that we may diminish the work thrown upon the stomach and intestines, for during this period of the year these organs are apt to be not as well prepared to perform their function as at other times, and the food we buy is not always fresh and good.

We have in a previous article learned that meat, particularly when it is taken in large quantities, undergoes fermentation and putrefaction in the intestinal tract, and is largely the cause of the discomfort which oftentimes follows its use. This is much more marked during the warm weather, and, therefore, meat should be sparingly eaten during the summer.

Fish is a good summer food provided it can be obtained fresh. This is necessary, for it decomposes very rapidly in warm weather and if eaten in this condition may cause unpleasant and even serious results.

Cereals, fresh vegetables and fruit are also very valuable articles of diet during the warm weather.

Danger of Street Vendor's Products

Nothing is more unfit for human consumption during this time of the year than the decomposed and filthy fruits, drinks, etc., which are found for sale on the streets, particularly the ice cream which is dispensed from the so-called "hokey pokey" wagons. This stuff is consumed chiefly by children in the tenement house districts and is usually served to them on pieces of brown paper. As a rule, no one but the manufacturer knows where it is made or the manner in which it is adulterated, or what becomes of that portion which is left from the day's sale, although it is presumably worked over for the next day's output. Considering the care which is taken by municipalities in connection with their milk

Digitized by Google

supply, it is difficult to understand why the sale of such an unhealthy product as this should be allowed.

No greater or more practical charity could be inaugurated than the establishment throughout the tenement house districts of depots where pure and refreshing fruits, drinks and ice cream could be supplied at a low cost in order that they may take the place of those now purchased from the street vendor.

Pure Milk

While this article does not admit of sufficient space to discuss in detail the selection and care of milk, particularly during the warm weather, it must be said that no article of food is so vitally important as this to mankind, particularly to the young, and there is no food which is more unfavorably affected by the heat. Therefore, every possible means should be taken to secure milk in its best and healthiest condition. "Dipped" milk, or that which is dispensed from cans in the various stores should never be used, for the receptacle is opened whenever a purchase is made and probably many times besides; therefore, bottled milk should be used instead, for although it costs more, the protection it affords really in the end constitutes a matter of economy. Milk should always be kept close to the ice in order that the growth of bacteria may be prevented.

During the summer and in the presence of suspected danger, milk may be boiled or Pasteurized; while the former is quite certain to destroy all germs which may be present, it renders less valuable some of the nutritious constituents of the milk, and therefore, for prolonged use Pasteurization is employed. This refers to the treatment of milk by subjecting it to a temperature of 150 degrees for 20 minutes, then placing it on the ice. While this temperature does not injure the constituents of milk, as occurs in boiling, it will render harmless the germs of tuberculosis and other forms of bacteria. This simple method may be carried out as follows: The bottles containing the milk, properly sealed, may be placed in a pan of water, the latter being raised to a temperature of 150 degrees (Fahrenheit) and *kept at this point for twenty minutes.* The bottles are then to be removed and placed close to the ice. As a matter of economy so far as the ice is concerned, the temperature of the milk may first be lowered by subjecting the bottles to a flow of cold water.

The use of powders or other mixtures which may be advertised as preservatives of milk should be avoided; for they cannot be depended upon and may do considerable harm.

Hot Weather Drinks

There is an urgent call for fluid on the part of our system during hot weather for, as it has already been stated, the skin is constantly abstracting from the blood large quantities of water which must be replaced, and therefore, the question of summer drinks is a matter of considerable concern. Water is the most valuable agent for this purpose, for it is the natural drink, is most satisfying, and should be freely taken. Iced water moderately used, chiefly between meals, is not only *not* injurious but helpful, for it supplies the need of fluid and aids in reducing the temperature of the body. The so-called "soft" drinks are of value provided they are not adulterated, but unfortunately, this only too often occurs, principally because there is not proper supervision over their manufacture. The excessive use of alcohol contributes largely to the uncomfortable or serious conditions which occur in hot weather, for it is commonly those who use alcoholic drinks in large quantities and of bad quality who first succumb to heat prostration.

Exercise is Necessary

Another very important means of avoiding the unpleasant results of hot weather is to keep the bowels properly open, for if this is attended to, there is less danger of the absorption of poisonous products from the intestinal tract, and the temperature of the body is kept under better control. An occasional dose of Rochelle Salts or one of the other saline laxatives which do not irritate the stomach or the intestinal tract is a helpful agent in this direction.

Some exercise is not only healthy but necessary, even in very hot weather, unless a person is suffering from some organic disease or some other debilitating physical condition which contraindicates it. However, judgment should be used in selecting the form of exercise.

Strange Ideas of Relaxation

A vacation is a very important aid in preserving a good physical condition during the summer, but a large part of the population of a city cannot enjoy this pleasure and must depend upon some form of night or day entertainment and relaxation. Unfortunately, the great mass of people in this country do not select the recreation which is of most value to them. In this we are far behind European countries, for there they secure the most suitable and valuable means of rest and comfort at the minimum cost. Observing foreigners as well as others who have watched the struggling mass of humanity who daily visit our various seaside resorts and who with little children are packed in crowded cars, both coming and going, and while at these resorts are encouraged at every point to eat improper food and take alcoholic drinks, and who return home at night, tired, sunburned and irritable and at considerable expense,—cannot quite understand what benefit is derived from this form of so-called pleasure.

A Day's Outing

The more quiet inland places should rather be selected for a day's outing. While sea air has its advantages, but little is derived from it in a day's excursion, particularly when the weather is hot and there is a constant exposure to the direct rays of the sun. There are many inland places which provide shade, quiet and a lower temperature and an abundant supply of good drinking water, the latter being a very important consideration. A luncheon taken from home offers far more pleasure than the purchase of food of a questionable character. These conditions offer a better opportunity for rest and recuperation.

Resisting Power

The lesson we should learn from what has been said regarding the heated term, as it is called, is not that it is to be regarded as an evil which can be dealt with only by change of diet, rest, etc., but rather that the summer months constitute the normal climatic conditions of a certain season of the year and that it is not intended we should unduly suffer if we properly prepare ourselves for it. In other words, we must so far as possible keep ourselves in good physical condition at all times, the question of diet, etc., being a part of personal hygiene.

Hot and cold weather, like disease, select for their victims whose who are in poor health or who are careless about their physical condition, while on the other hand, those who present a formidable resisting power are but little affected by the various climatic changes.

No better or more striking illustration of this can be given than in the instance of athletes, particularly baseball players, for these men during the hottest part of the day are continuously engaged in the most active exercise for two or three hours, and it is rarely that we hear of heat prostrations among them. This simply means that by careful training they have developed a resisting power which is but little affected by hot weather. It will be found that they are subjected to the most careful discipline as to their habits, foods, etc., and while it may not be possible or practicable for all to attain this splendid physical condition, we can use it as a text and remember that the preservation of our health is largely in our own hands; it matters but little what season of the year is present.

Digitized by Google

Address of Mr. Vail at the Commencement Exercises

of the Graduating Classes of Lyndon Institute and Lyndon School of Agriculture, Lyndon Center, Vermont, June 20, 1913

THIS is more to you than a school commencement; it is to you who are starting out to contend with stern realities the real commencement of life.

Experience, the Real Teacher

So far, your work has been with the history, the theories, and the experience of others. Now you must come up against concrete conditions and through your own experience find out the real value of what you have learned, learn how best to utilize it and how to make it produce for you results; in other words, you will make your own history and get your own experiences.

You probably have lots of ideals, you are doubtless strong in hope and faith, but as you go along many of your ideals will be shattered and many of your hopes will be dampened and you will at times require all of your persistence and faith to keep from utter discouragement.

It is from your failures and your disappointments, if rightly used, that you will get your valuable experience. It is by overcoming and rising above them that you will achieve your successes.

Perseverance With Intelligence

Lincoln once said to the effect, that intelligent perseverance only would accomplish great results. Nothing truer was ever said, and if you will take it to your hearts, think well what it means, analyze it with intelligence, apply it conscientiously, you need have no fear of your future. Intelligence in all things is necessary to success, and your success will be in the measure and to the extent that your plans, ambitions, hopes, and particularly your labor and your actions are controlled and directed by intelligence and common sense.

Profitable Labor

And in this connection, I want to speak of labor. We hear much of the dignity of labor, the nobility of labor, that the laborer is worthy of his hire, that labor is entitled to what it produces.

Labor performed in a shiftless, unthinking, unintelligent, instinctive way is neither dignified nor noble and never is profitable.

The only thing that makes labor profitable, dignified or noble is the intelligence that is used in directing it, and that intelligence which directs it may be either your own or that of others, and to the extent that it is yours, you will get the full value that is produced by both your labor and your intelligence, and to the extent that it is the intelligence of others which directs your labor, you must share with the others the value of what is produced.

Do not confound labor directed by intelligence with expert or skilled labor, which may be performed in a wasteful, unintelligent, perfunctory or instinctive way. Expert or skilled labor, when working on the separate units of a large structure or on a large organization must be directed by a supervising intelligence that the separate units may be brought, each into its proper place, with as little indirection or loss of effort as possible.

Constructive Work

Intelligent labor or intelligent direction or organization of labor is that which enables you or others to produce greater results with less, or at the least the same amount of labor than it would otherwise produce, and the one whose intelligence brings about such result is entitled to and should get a share of the savings or the increased results.

You can't get something for nothing, you can't live by your wits and feel comfortable or respectable—any gain at another's loss will react on you. All the great and permanent gains in this world come through constructive work, creating new values to old things by making them better and more useful, by creating new things of value to the world, or by the organization of those forces which bring about these results. This applies as closely to the farm as any other pursuit or vocation in life.

"A Stitch in Time Saves Nine"

I will repeat here in substance what I have often said before—First: determine what you want to do, then acquire an understanding of all that is necessary to accomplish it most profitably and efficiently, then go about the doing of it in an orderly and effective way. By knowing what you want to do and how to do it in advance of the doing there is no waste effort or lost work, and you will find in this the most effective offset for the high cost of living that has yet been devised.

Observe; keep your eyes open; when you see a farmer with a neat looking farm, sleek well-fed cattle, a good horse, nice comfortable carriage, clean front yard and good garden, just watch how he does it and if you can catch him at work, for that kind of a farmer has lots of time to read and visit and take such recreation from his labor as every man should take, you will find he works effectively, thinks out and plans his work, does not dawdle but works when he does work. He directs and drives his work, his work doesn't direct and drive him. He believes that a stitch in time saves nine. He doesn't wait for the door or gate to break itself down for want of a nail or a stone to drive it. Remember that it doesn't take any longer, if as long, to do a piece of work when it should be done than it will take to do it after it should have been done, and besides when done in time it is much more effective.

The best kept house is that of a housewife who never seems to be busy nor in a hurry. If you want anything done promptly, go to a busy man.

Credit

Be forehanded, to use an old-fashioned expression, and unless it is in the legitimate conduct of your business, don't make use of credit and never use your credit in any business that you are not thoroughly familiar with and thoroughly understand—if you are bound to speculate make it a cash transaction. It doesn't take any longer to earn a dollar before you spend it, than it does to earn it after it is spent, and besides if you have it in hand you are apt to spend it more wisely. Wait for luxuries and even comforts until you can pay for them and you avoid the discomforts of the future pay day. Over-expansion of individual credits is what produces bankruptcy and panics. No power on earth can produce either when credit is kept within legitimate and reasonable bounds.

Good Reputation, a Valuable Asset

We have been speaking of intelligence. Don't fall into the mistake of forming your own opinion of your own intelligence or capacity—let others do that. It is only in politics that your own claims to your own greatness are taken seriously and where promises will be taken sooner than a good record. In real life it is reputation that obtains confidence for you, and reputation is based on performance, not on promise.

Be jealous of your reputation. You may sometimes even after the exercise of the best efforts be unfortunate, but if you have a good reputation you can soon get on your feet, but don't

Digitized by Google

get into the habit of being unfortunate. It is not often that misfortune is persistent without a cause, and when there is cause beyond your control a good reputation will stand you in great assistance.

Don't depend too much on others. People get tired when called on too much.

The strongest pull and the heaviest push in this world is that which you yourself create. Remember if others have push or pull it is because of some force they exert through some reputation they have created. Observe—see how they obtained it and get one for yourself. Be selfishly independent of, but kindly helpful to others and you cannot help but enjoy life.

Choose a Vocation Carefully and Stick to It

Deliberate and with careful consideration choose your vocation in life and then stick to it. The other man's job looks easier, but it isn't. Don't be all the time thinking you would rather do this or would rather do something else. You know Bret Harte said once, or rather one of his characters did, that he had noticed that people didn't generally get their "d'rathers." I might "d'rather" be standing on the platform in a graduating class listening to the good-natured advice of some old man, but the wishing wouldn't do me any good. So I will wish you good luck and everything that is good in this world, and I would be willing to guarantee it to you if you will be as earnest in your work as I am in my words to you.

Co-operation

To parents and all: We have a school or schools here which should be in every way acceptable to all of you. We have the Trustees, the educators, the people, the pupils and the children. But endowments, Trustees, educators, parents, children, each working by themselves indifferent to each other, cannot make a successful school.

Mutual support and confidence—co-operation—teamwork on the part of all and respectful subordination on the part of the pupils only can make a good school. If you will only realize this and act in accordance with it we will have a school or schools to be proud of.

Attract Attention and Seize Opportunity

To the Pupils and Children—it is upon you—it is upon the graduates that the school sends forth, that the future reputation of the school rests. Your future standing in the community or in your business or your profession will be largely based upon the work that you are doing here or in other schools; remember this when tempted to neglect opportunity, to infringe discipline, to obstruct or embarass the working of the school.

Don't fall into the error of thinking that in these days there is no opportunity—there is more now than ever. Look at the list of names that control or are interested in the great constructive work of the world, those who have accomplished something, and you will find ninety-nine or more of every hundred started at the bottom rung of the ladder and unaided except by their ability, enterprise, persistency, climbed up from rung to rung to their present position. I have to do with many thousands of young people starting life, and it would astonish you to see the quickness with which the to-be successful attract attention to themselves. Bear in mind the words, attract attention. The to-be successful ones attract attention—it is never necessary to have attention called to them.

Have proper respect for your position, whatever it may be or wherever it is. We are all of us units in the social structure, and each in his or her own particular position an important unit. If each fills that position, accepting all its responsibilities and fulfilling all its requirements, not disturbing all around with unrest or dissatisfaction, being ever ready to move into other positions as opportunity and conditions make it possible or desirable, all will go well and each will have done his duty to the state, the family, and to himself.

Partial Summary of Outside Development Work, Planned and Under Way

Sea Cliff, L. I.

ABOUT three years ago a cable distributing plant was constructed along the principal streets in Sea Cliff where the development warranted cable construction or where the growth in telephones was expected to be rapid. The growth along these streets has been very satisfactory and in addition the development has extended along other streets where it has been necessary to place large numbers of aerial wires to care for new subscribers.

Mention was made in *The* TELEPHONE REVIEW several months ago of an appropriation of about $22,000 to cover the construction of subway and underground cable between Glen Cove and Sea Cliff, this work to provide feeder plant for Sea Cliff. This work is about completed and a further appropriation of over $12,000 has recently been authorized by the Executive Committee to provide for the construction of between four and five miles of distributing cables in Sea Cliff.

The completion of this new work, which will probably be effected within the present year, will permit the removal of a large number of aerial wires with a consequent improvement in the appearance of the plant and a decrease in the number of maintenance troubles, and will provide for Sea Cliff a comprehensive cable plant with sufficient facilities to care for a large growth.

Forest Hills, L. I.

THE active development of high-class residences in the Forest Hills section has brought a very rapid growth of telephones recently, the increase during the first half of the year amounting to considerably more than was estimated for the entire year. As a result of this growth additional cable plant will be required within a short time to care for new business and plans have been prepared for extending subway and underground cable from Forest Hills Gardens into the section east of the Long Island Railroad.

A total of about two-thirds of a mile of subway will be built and about one and one-half miles of 300-pair underground cable will be placed. This work will provide relief for existing distributing cables in which nearly all of the conductors are now in use and adequate feed facilities to care for the large growth which is expected in this section.

Cortland, N. Y.

OVER $60,000 has been appropriated under two recent estimates for very extensive outside plant work in Cortland, New York. This work includes the construction of about one mile of subway, placing between nine and ten miles of feeder and distributing cables, and removing a large number of aerial cables, poles, and aerial wires.

Cortland is a progressive manufacturing city and at the latest official census had a population of about 11,500. Surrounding it is a very rich farming and dairying territory.

The telephone development in the city is exceptionally good and the growth during the past few years has

Digitized by Google

required the use of practically the entire available plant facilities in a number of sections, with the result that addititional plant is required to care for growth.

In connection with providing additional facilities, it is planned to concentrate the plant throughout the city by replacing a number of aerial wire leads with cables, and placing the entire feeder and distributing plant underground in the business center of the city. Subway has already been completed and the underground cable will be placed within a short time. After its completion the existing aerial cables will be removed from Main Street, Clinton Avenue, and Railroad Street, in this section of the city and local distribution will be cared for by means of cables extending into the individual business blocks. Throughout the remainder of the city concentration of plant will be extensive, the plans providing for placing of cable on practically all of the built-up streets.

In addition to the increased plant facilities to be provided by the new work, and the reduction of maintenance troubles to a minimum by the substitution of cables for aerial wires, a very great improvement will be effected in the appearance of the entire outside plant by the removal of the following aerial plant: 200 poles, 1,550 cross-arms, between 7 and 8 miles of cable and 230 miles of aerial wire.

The total cost of the work including the block cable construction will approximate $63,000 and upon its completion Cortland will be provided with a telephone plant second to none for a city of this size.

Claverack, N. Y.

CLAVERACK, located about four miles east of Hudson, is a good residential community and is the center of a good farming section.

The establishment of a central office in Claverack and the construction of a complete telephone plant both in the village and the surrounding territory have recently been approved.

An appropriation of over $6,000 has been authorized for the outside plant work, which will include pole line construction along more than 13 miles of streets or roads and the placing of about 1.2 miles of cable. A large amount of the material has already been delivered, and upon the construction of the pole lines in the various sections of the new district, a number of aerial wire circuits will be placed in order to reach new subscribers.

During the next year it is estimated that the number of telephones in this district will be more than doubled, and in three years more than quadrupled. The plant expenditures necessary during 1913 for outside construction, central office equipment and subscribers' equipment will total considerably more than $7,000.

Youngstown, N. Y.

TELEPHONE service in Youngstown is at present provided from Lewiston by means of long aerial wire circuits, the service being on a rural line, multi-party basis. Owing to the distance between these towns the cost of providing plant facilities and maintaining the service has been high and the development has therefore necessarily been restricted.

The River Road section of Youngstown is rapidly building up with high class residences, while the rural portion of the district is a very rich farming and fruit growing section.

In order to care for the telephone development which can reasonably be expected in this district it has been decided to establish a new central office and construct a complete outside plant in Youngstown. Provision for the necessary cable work has been made under a recent estimate carrying an appropriation of about $4,000, and in connection with this work a considerable amount of pole line and aerial wire construction will be undertaken to care for the connection of new subscribers and provide ample facilities for the large amount of toll business originating in the district in connection with the fruit growing industry.

A large growth of telephones is expected to follow the establishment of the new district and it is estimated that a total expenditure of about $8,000 will be made for new plant during the next two or three years.

Woodbridge, N. J.

PLANS have been completed for a cable distributing plant in Woodbridge and an appropriation has been authorized for the work.

About three miles of cable containing from 25 to 200 pairs of conductors will be run, these cables displacing a large amount of aerial wire and providing added plant throughout the town to care for the expected growth during the next few years.

The estimated cost of the work is about $9,000.

Rahway, N. J.

MENTION was made in *The* TELEPHONE REVIEW of the extensive outside plant work in Rahway a year or two ago at the time the service was changed from magneto to the present common battery type.

There has been a considerable growth in telephones in this district, a number of which have been secured in sections where distribution is at present effected by means of aerial wires. These aerial wire leads have become heavily loaded and in order to care for new business it has been planned to run between 3 and 4 miles of distributing cables.

The estimated cost of this work is about $8,000 and upon its completion the plant in Rahway will be adequate to care for the large growth expected during the next two or three years.

Westfield, N. J.

THERE has been a very active development of high class residences in Westfield, which has resulted in a large growth of telephones during the last few years. A number of new buildings are now under construction and this development gives every promise of continuing.

The number of telephones in this district increased about 17 per cent. last year, and with continued building activity it is expected that the growth will be very rapid in the next few years.

A large amount of underground and aerial plant has been constructed, as mentioned in previous issues of *The* TELEPHONE REVIEW, but it will be necessary in a short time to extend cables into the outlying portions of the district to care for the growth in new development sections.

Under a recent appropriation of about $14,000, provision has been made for extending subway and for placing about 4 2-3 miles of distributing cables, the greater part of the cable work being in the outlying sections.

With the added plant facilities it will be possible to care promptly for growth in all sections of the district.

Belleville, N. J.

BELLEVILLE is to be provided with a complete all-cable distributing plant throughout the developed portions of the district, a total of about six miles of cable being planned under a recent estimate.

This is a rapidly developing residential town with an estimated population of about 11,000 and a large growth of telephones is expected during the next few years.

Underground feeder cables recently provided in the subway in Washington Avenue contain sufficient spare conductors to care for the growth for some time to come. The distributing plant, however, consists almost entirely of heavy runs of aerial wire and under a recent appropriation of about $23,000 it is planned to replace this wire with cable, which will greatly improve distributing conditions and afford plant facilities for the prompt connection of new stations.

Digitized by Google

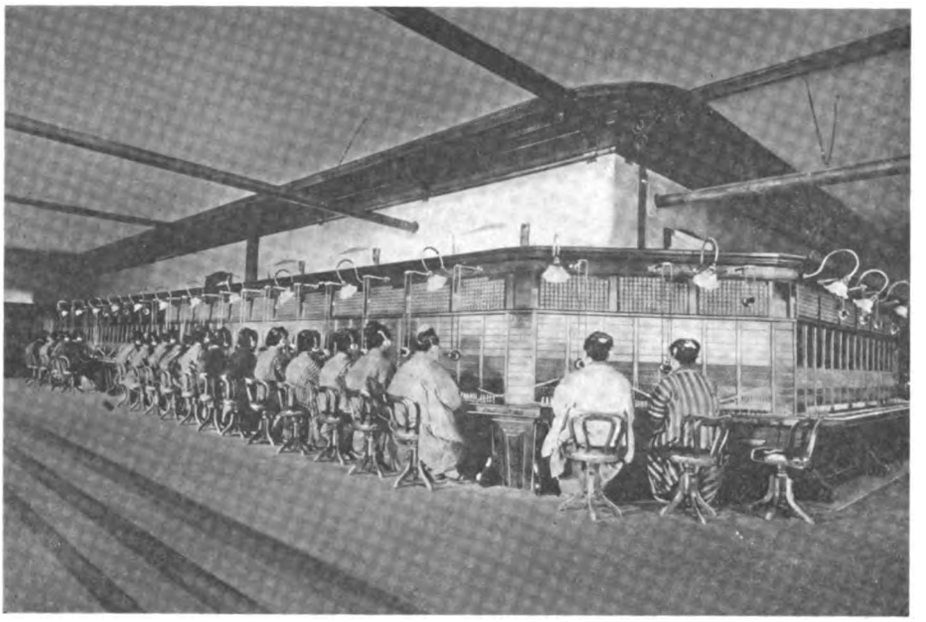
An Interview with Mr. Takeo Hida

Electrical Engineer to the Imperial Department of Communications, Tokio, Japan

DURING the week of July 9 there appeared in the New York and Brooklyn newspapers an advertisement entitled "New York is the Mecca of Telephone Men." At the same time that this advertisement was running, Mr. Takeo Hida, Electrical Engineer to the Imperial Department of Communications, Tokio, Japan, was a visitor in "The Telephone Capital of the World," studying New York's telephone system.

Mr. Hida was very much interested in the newspaper advertisement, and apparently its truth was borne home to him by the fact that the sketch illustrating the advertisement showed a New York telephone man conducting engineers of foreign countries through one of our Exchanges, pointing out our reserve equipment and describing how we handle over two million telephone calls a day. In the group of foreign engineers there was a very likely looking Japanese, and although Mr. Hida was too modest a young man to give us his photograph, he agreed that the sketch was a true representation of the importance of New York's telephone system as a center of instruction for telephone men the world over.

Mr. Hida is making a careful study of telephone systems in all the principal cities in the world. He first spent considerable time in San Francisco and Los Angeles. He then studied Chicago's telephone system. Chicago is about the size of Tokio, and Mr. Hida had a good opportunity there to contrast the up-to-date and efficient operation of a unit of the Bell System with the Tokio Department of Communications. One month was given to a study of the Western Electric's Plant at Hawthorne, and three months more to a study of Toronto's telephone system. For the past four months Mr. Hida has been studying in New York. Three months of this time he has been in the Engineering Department of the American Telephone and Telegraph Company and one month with the New York Telephone Company. He will next visit Boston, London, Paris, Berlin and Copenhagen, and journey around the world to Tokio.



TOKIO EXCHANGE, JAPAN.

Mr. Hida expressed the opinion that New York's Telephone Service is "the best in the world." "It's almost too quick—too good," said Mr. Hida as he explained that in Tokio it took from two to three times as long to make local connections and longer to make toll connections. "You make all your connections 'no delay'," said Mr. Hida, "while in Japan the calls are 'all delay'—in some toll calls it takes part of a day to get the connection." Mr. Hida talked freely about Japan and its telephone system, and his comments giving a picture of the telephone in Japan were interesting and instructive.

In Japan the telephone system is owned by the Government, and the Government, due to recent wars, is not in a position financially to provide facilities adequate to meet the needs of all those who desire service. Mr. Hida said that there are 35,000 telephones in Tokio, and there are 35,000 more applications for telephones than the Department of Communications is able to fill because of lack of facilities. It is a fairly common practise in Japan for a man who needs a telephone badly to buy the contract of some subscriber whom he can convince needs the service less than he does, and simply for the privilege of getting the contract the applicant is usually willing to pay the subscriber as high as $100, aside from assuming the obligations of the contract.

Bills for local service in Japan are rendered every three months and are payable in advance. Bills for toll service are rendered monthly. There are a number of Public Telephones of the slot machine type in convenient locations about the city.

Mr. Hida said that the telephone is used quite generally and the Japanese housewife calls up her grocer and orders the day's supplies practically as the American housewife does.

Mr. Hida was especially interested in Traffic Engineering. In Japan all calls, including Long Distance, are "Number" calls. The longest toll line is about 350 miles. In Tokio about 80% of outside wire is in aerial or underground cable.

Mr. Hida was asked whether the little Japanese girls operating the switchboards found it difficult to reach all of the connections, and in answer to this, Mr. Hida said that to make up the difference in stature, a platform 6 inches high is placed before the switchboard, and this allows the Japanese operator to make all the connections for which she is responsible. For her work at the switchboard, an operator in Japan receives a salary of 20 cents a day.

There are 8 Central Offices in Tokio; 3 are Common Battery and the other 5 are Magneto. These are being gradually changed to Common Battery. The Central Office "Namiwa" is perhaps the most interesting Central Office in Tokio. It is their busiest "Talk Shop," because it is located in the business center, and as Mr. Hida said, with a smile, "Our 'Namiwa' Central Office handles the Stock Exchange calls that are similar to your Wall Street calls." Two other Exchanges of interest in Tokio are "Kyo-

Digitized by Google

bashi" and "Shinbashi." Central Offices in Japan are named for famous places or districts, and, no doubt, these Japanese names carry with them the significance to the Japanese that assists him in calling the right Exchange.

The Japanese, however, do not trust to memory for finding their telephone numbers any more than the American does. Each city has its Telephone Directory issued by the Government. Advertisements are not printed in the Japanese telephone directories.

The Department of Communications, of course, is not in a position to advertise its service. However, the newspapers are used to instruct the public how to use the service. According to Mr. Hida, the Japanese papers are "very progressive—very much alive," and oftentimes editorials ands news articles appear criticising the Imperial Department of Communications. The latest types of American printing presses are found in Japanese printing houses, although the Japanese also manufacture printing presses.

When Mr. Hida has completed his trip around the world he will be in a position to take back to Japan the latest and best information obtainable on telephone work the world over, and the information he received in New York, "The Mecca of Telephone Men," will be of no little value in the work of reorganizing the telephone department of the "Imperial Department of Communications."

What Telephones Have to do With Business

HOW piano dealers can use the telephone to increase their sales is the subject matter of an article by the editor of the *Musical Courier Extra,* which appeared in that publication on July 19.

By substituting any other line of business for that of piano dealers, the article would be equally applicable. The comprehensive and intelligent presentation of the facts will easily be grasped by telephone salesmen, and assist them in enlarging the usefulness of the telephone among their customers.

With these few words of introduction, we print the article in full, but first we would call especial attention to the high compliment it pays to the service of the New York Telephone Company.

TELEPHONES

Probably the readers of *The Musical Courier Extra* will wonder what telephones have to do with the piano business. Telephones have a great deal to do with selling pianos, especially at retail. Let any piano man who sold pianos before the days of the telephone compare his work then with his work now. A man with a telephone has at his command every prospect that he is working with. He can get access to a piano prospect through the telephone that in the days before the telephone he could not approach, under any circumstances. We old men in the trade who sold pianos before the telephone became an institution can well remember the trials and tribulations and the perturbation of the mind as a corner was turned and the front door of the home of a prospect was approached and realize that there was no adequate excuse for ringing the doorbell and asking for an interview. With the telephone there always is an excuse offered for calling the prospect up and asking some question that will lead to a discussion of the piano.

A good telephone service is one of the greatest assistants that can be exercised in the selling of pianos. It far surpasses the mail, and the piano salesman who knows how to utilize the telephone can do more work in two hours than he formerly could do before the days of the great invention in two days.

The piano manager or dealer who complains about the number of calls is simply exercising one of those economical traits that is an extravagance, which means that it is a lack of business judgment which means a curtailment of piano sales. The piano dealer who finds that his telephone calls are not numerous should at once look into the matter and see why it is that his salesmen are not working. It is common sense to size up the attention the salesmen are giving to their prospects through the number of telephone calls that are sent out from the house or that come into the house. There is probably no easy way of keeping a record of the telephone calls sent into a house, but there should always be a record of the telephone calls that are sent out. The telephone exchange in the house, however, can be made to give a reliable account of both the outgoing and incoming messages.

Likewise there should be great attention paid to the manner in which the telephone is handled in any business house. The rough answer to a call does damage to the reputation of any business concern, and special attention should always be given to the telephone. The one detailed to answer calls should be instructed to speak pleasantly, for this acts exactly the same as the manner in which visitors to the warerooms are received by those waiting upon them. It is a matter of the utmost importance that the telephone should act as a builder up of the reputation of the house for courtesy and promptness.

The use of the telephone should be encouraged by the manager, for the more telephone calls that go out, the more times the house is placed in the minds of those who receive the telephone messages. If the average cost of a message is three, four or five cents, it pays for itself in the way of advertising, for every time anyone outside receives such a message from the house, it serves as an advertisement in the way of bringing the name of the telephoning house to the mind of the particular person who is receiving the message.

The house that is economical in its telephone calls, economical in its lighting bills, and economical in its cleaning bills, is exercising the greatest extravagance known in any business.

New York City has the greatest telephone service in the world. All admit that. Anyone who has traveled, anyone who has utilized the telephone in Boston, in Cincinnati, in Chicago, in St. Louis, or any of the towns outside of New York City, realizes at once when he attempts to work with the telephone that New York City gives the greatest service that is known, and the system is one that is as near perfect as it is possible to make it. There being only one

Bush Terminal

SOME time ago we asked W. M. Oestreicher, editor of *The Bush Idea,* the house-organ of the Bush Terminal Co., to write us a short article describing the extensive telephone equipment of that Company in Brooklyn. The story proved so interesting that instead of being sent to us, it was used by them in the July number of their publication.

It is entitled "Hello Central, Give Me 'Bush'" (which would result in being referred to Information for the correct number), but shows how an enormous plant and telephone facilities have grown hand in hand from small beginnings.

In 1892 they had one telephone "in a building 10x20," but the next year they had to have 2 lines and five stations. In 1896 a P. B. X. with 3 lines and 7 stations was installed upon the completion of three of their piers, and in 1901 when they erected an office building they added 11 stations. Two more piers were finished in 1903, and a 2-position P. B. X. had to be installed, with 34 extensions. This was superseded in 1906 by a 3-position board, with 10 trunk lines and 50 stations and two tie-lines between their offices in Brooklyn and Manhattan.

In March, 1911, 2 trunk lines and 7 stations were added, and in the following December 3 additional trunk lines were connected, making 15 in all.

Their present system is described as follows:

"At the present we have a 3 position board with 18 trunk lines to the Central Exchange for that territory (Sunset), 2 tie lines from our Private Branch Exchange in Brooklyn to our Private Branch Exchange in New York, and 80 extensions.

"We have an average of 42,000 local calls each year."

Besides, they have about 200 tenants who have their own telephone service and some of whom have an equipment that is larger than the Bush Terminal had not so many years ago.

Digitized by Google

telephone service in New York City makes it possible to bring it to its high state of efficiency. Whenever there is any attack made on the New York City telephone system, it is an attack made on one of the greatest business adjuncts or accessories that form a commercial system. It may be claimed that the New York telephone system is a monopoly, but it can also be claimed that the post office system is a monopoly. It can be similarly claimed that other systems are monopolies, but a monopoly is not an injury, no matter how much money it makes, when that monopoly is giving as near a perfect service as it is possible. *The Musical Courier Extra* is not interested in the New York telephone system, it knows none of the high officials personally, but it does have the highest admiration for the special service that is rendered, for the telephone bills of *The Musical Courier* system, together with its telegraph and cable tolls, are probably as great an expense as is the total of one or two of the so-called piano trade papers that will probably say that *The Musical Courier Extra* had an axe to grind in thus praising this wonderful service of the New York City telephone system. It is nothing of the kind. It is simply a plea for a system that is giving a superb service and is rendering for the money paid it an adequate return that is not surpassed by any like system in this country, or, for that matter, in the world.

Comparisons, of course, can be made as to the amount charged per telephone per year by the New York City system with that of the systems in other cities, but it must be remembered that there is a service rendered, and a greater number of telephones accessible in the New York City system than in that of any other city in the country. It is simply impossible to make a reasonable comparison with the system of the New York City telephone company and that of other cities. The number of points accessible through one telephone should be taken into consideration and the percentage arrived at as per for each telephone, basing the cost in that way, but also there must be added to that the efficiency which is one of those intangible accessories that can only be proven through a personal test with like conditions in other territories.

It may be that the New York telephone system charges high prices, makes an enormous amount of money and all of that, but it must also be remembered that there is given in return efficiency that cannot be surpassed and a general politeness when complaints are made that is surprising when one considers that the system does enjoy a monopoly. If all monopolies gave a return such as we receive for the money we pay to the New York telephone system, there should be no complaints as to monopolies or any other combination that gives results that create and help to expand business enterprises.

All this applies to the piano business just as it applies to every other business. The telephone is, probably, as necessary an adjunct to the selling of pianos as anything that has to do with the work. When the service of the New York telephone system becomes as inadequate as that found in other large cities, then it is time to take this word "monopoly" and manipulate it to its utmost political ends, but as long as conditions are as they are, suppose we let these men who are giving this wonderful system to us work along their own lines and continue that for which other cities are begging and which they cannot get, even though they pay the price.

N. Y. TELEPHONE CO.'S NEW ALBANY BUILDING.

New Telephone Buildings in Albany and Troy

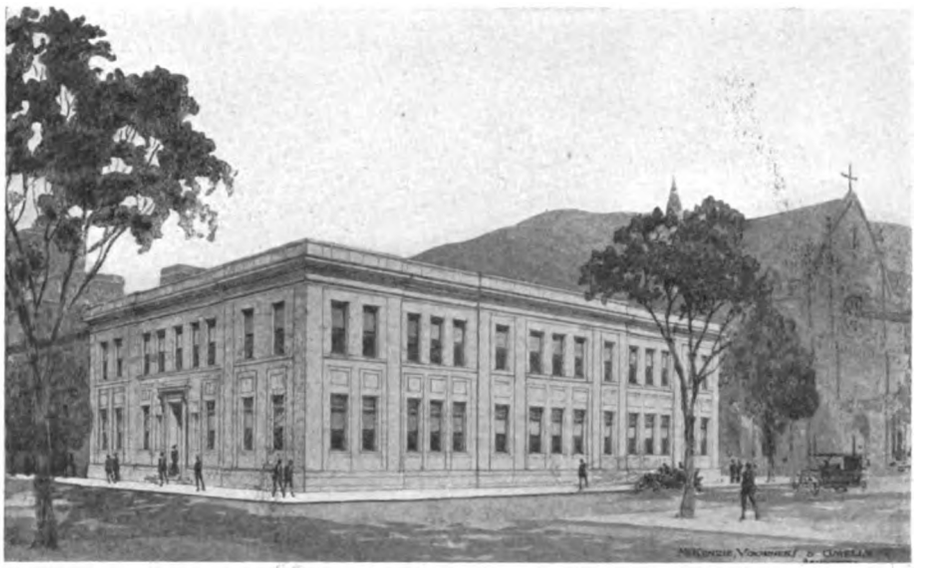
"THERE is the Bell Telephone Building." What does this remark mean to the visitor to a strange city or town as he is being shown the objects of interest?

It means that this building stands for the great Bell Telephone System with its lines of communication running east and west, north and south, defying space and enabling people living hundreds of miles apart to talk to one another as readily as if they were face to face.

It typifies the genius of an inventor who solved the problem of the electrical transmission of speech, and the energy and foresight of those who, recognizing the possibilities of the telephone, laid the foundations of this great system as it is to-day.

The primary object of a great business or an institution in erecting a large and imposing edifice is to provide a home in which to carry on its work. And there are many who believe that merely providing ample quarters is sufficient without much regard for the beauty and architecture of a building. Looking beneath the surface, however, it will be realized that a noble building which commands attention among its fellows creates a

Digitized by Google



N. Y. TELEPHONE CO.'S NEW TROY BUILDING.

new standard and elevates the dignity and importance of the neighborhood, as well as becomes a monument to its builders.

Young as the telephone business is, its tremendous strides have placed it in the front ranks of industry. Step by step the New York Telephone Co. is erecting buildings in towns and cities throughout its territory. As Rome was not built in a day, neither can the company build in all these places in a day or even in a year, but it is continually planning and erecting to provide telephone facilities everywhere for years to come and make its homes and equipment stand as monuments to the greatest of modern inventions.

At present the company is erecting, among others, new buildings in Albany and Troy, two of New York State's fastest growing cities, particularly from a telephonic standpoint.

Albany

Albany, the capital of the Empire State, is a city with a population of about 100,000. An idea of what is expected of this city may be gained from the following extract from a speech on the proposed Telephone Building by Vice-President F. H. Bethell at a luncheon of the Albany City Plan Association on May 7:

The Bell Telephone Company with its universal service, must establish itself in every community. To the end that its service shall be the service which each community requires, careful studies are made looking into the future possible development of each community, as for instance, a study of Albany was made during 1912, from which I quote:

"It is estimated that in 1920 the population will be 125,000; the number of telephone lines, 12,000; the number of telephone stations, 23,000.

"In 1925 the population will be 135,000; the number of telephone lines, 14,300; the number of telephone stations, 27,000.

"In 1930 the population will be 150,000; the number of telephone lines, 16,375; the number of telephone stations, 32,000.

"In 1935 the population will be 170,000; the number of telephone lines, 18,275; the number of telephone stations, 36,000."

In preparation for this anticipated growth, the New York Telephone Company has begun the erection of a building which will rank with Albany's finest. Standing at the southwest corner of State and Park Streets, in the heart of the Capitol district, it will tower to a height of 10 stories with a frontage of 67 feet on State and 180 feet on Park Street. The main entrance will be from State Street. It is to be constructed of light stone, cream white brick and terra-cotta with a high pitched roof of glazed green tile. Absolutely fireproof, practically no wood will be used in the structure, and all the steel used will be encased in concrete. The architectural treatment, an adaptation from the Renaissance, will include the four sides of the building. Exclusive of halls, elevator and toilets, the building will contain over 80,000 square feet or about two acres of working floor space.

Two common battery switchboards, manufactured by the Western Electric Company, one for local, the other for long distance traffic will be installed. The local board will care for 16,000 stations initially and can be extended to handle 20,000. When the latter figure is reached a second board is to be installed.

The land and building entail an investment of approximately $800,000, and new equipment and changes in outside plant about $350,000, making an expenditure of $1,150,000 to provide for Albany's telephone future.

It is estimated that the building will be completed early in 1915 and the switchboard out into service during the latter part of that year.

Troy

Troy, the Collar City, has a population of about 80,000. This city is also growing rapidly telephonically, and the company has recently taken steps to provide a telephone building adequate for many years to come.

WIRE CHIEF'S DESK AND TEST BOARD.—M. E. WRENN, WIRE CHIEF.—TROY, N. Y., MARCH, 1893.

Digitized by Google

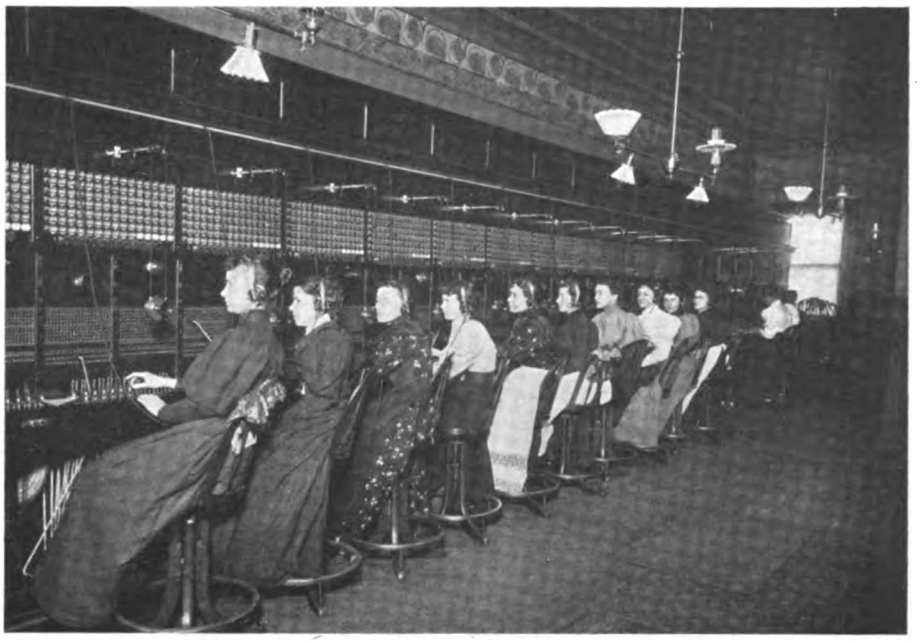
It will stand on a lot 90 by 130 feet at the northeast corner of State and Fourth Streets. The location is excellent, as it is near enough to the business section for convenience and yet removed from the noises of street cars and traffic.

There will be two stories and a basement, but the building is to be so designed that four additional stories and an extension in the rear may be added. Like the Albany Building it is to be constructed of light brick and thoroughly fireproof. In view of the damage done by recent floods in this district, unusual precautions will be taken to make the basement watertight.

Two switchboards are to be installed, one to handle ultimately the traffic of 10,000 lines with an initial installation for 5,000, the other a toll board. It is estimated that this building will care for switchboard growth until 1922 when another story will be added.

Work on the building commenced about August 1 and it will probably be finished in seven months. The switchboards will be completed in the summer of 1914.

The total cost of the building and switchboards is in the neighborhood of $500,000.

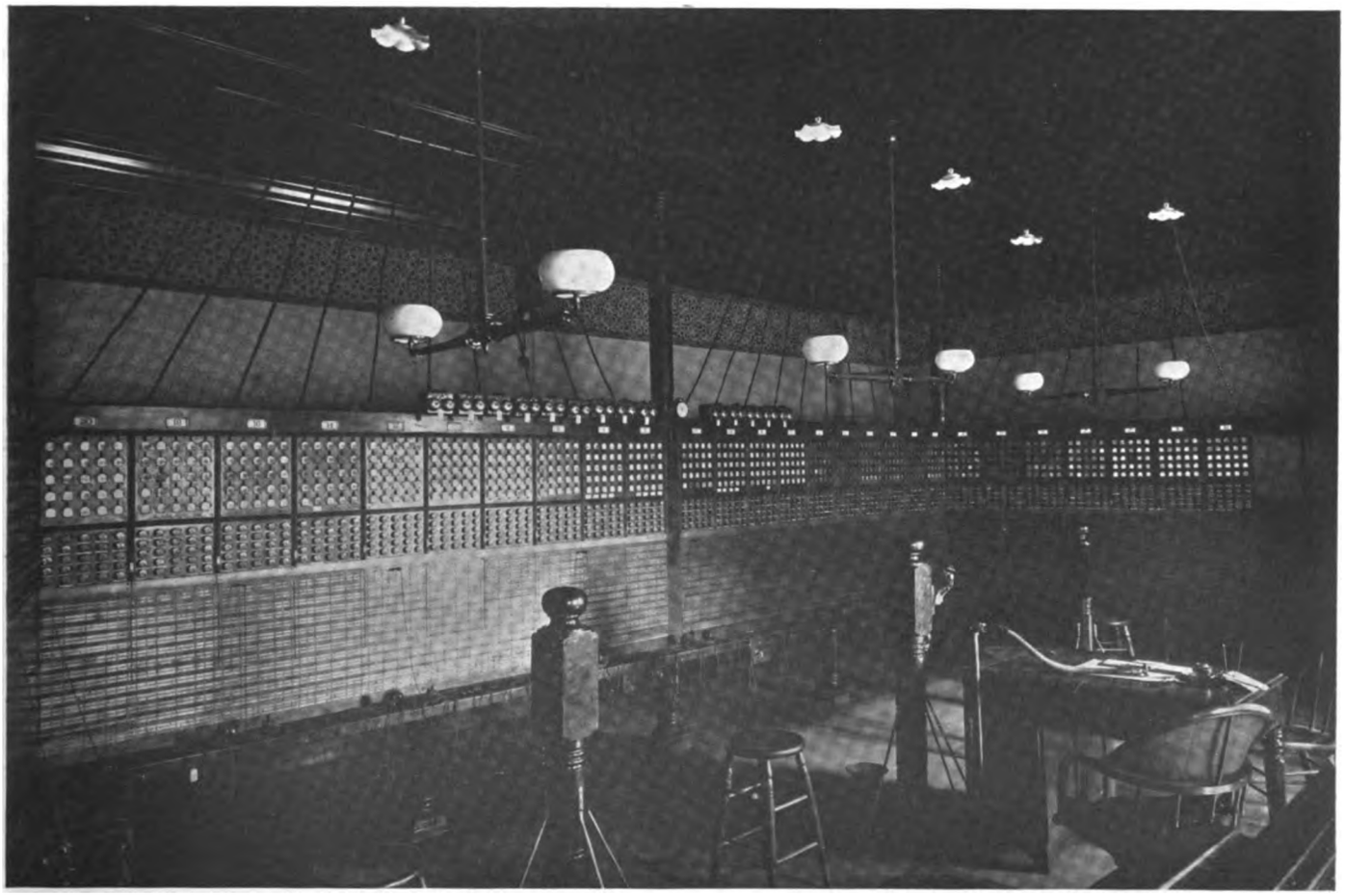


ANCIENT TROY.—MULTIPLE MAGNETO SWITCHBOARD WHICH SUPERSEDED THE OLD BOARD IN 1893, AND THE GIRLS WHO SUPERSEDED THE MEN OPERATORS.

Early Telephone Equipment in Troy

By P. J. Lumley, Wire Chief, Troy, N. Y.

THE accompanying pictures are of the old grounded line switchboard which was the first switchboard installed in Troy, N. Y.; the first magneto multiple self-restoring drop board, which superseded the former, and the first wire chief's desk and test board.



TROY'S FIRST SWITCHBOARD.—THE OLD GROUNDED UTICA FIRE ALARM DROP BOARD.—SUBSCRIBERS' NAMES WERE CUT OUT OF DIRECTORY AND PASTED UNDER THE JACKS, NO NUMERICAL OR ALPHABETICAL ORDER BEING OBSERVED.—BRASS STRIPS UNDER THE JACKS WERE THE MULTIPLE WHICH ENABLED THE OPERATORS (WHO WERE MEN AND BOYS) TO CONNECT SUBSCRIBERS FROM ONE END OF THE BOARD TO THE OTHER.—*From Photograph taken in 1884.*

Digitized by Google

The Troy Telephone & Dispatch Co. was organized February 28, 1878, with the following officers: Dr. Chas. F. Woodruff, President; John F. Porter, Vice-President; Geo. A. Waters, Secretary and Treasurer; M. C. Aspinwall, Superintendent.

The name was changed to Commercial Telephone Co. December 29, 1879, and to Troy Telephone & Telegraph Co. November 24, 1890. In May, 1901, the company was absorbed by the Hudson River Telephone Co., which was acquired by the New York Telephone Company in September, 1909.

In February, 1878, they had eight or ten subscribers, and the number was increased slowly until the people came to look upon the telephone as something they could not get along without, so business increased from year to year until the old board had about 800 subscribers.

These were the days before the advent of the salesman and this was the way we obtained new subscribers. A prominent merchant who used his neighbor's telephone next door would be cut off by the operator while talking (the operators were all men at that time), and told he could not use the telephone, as it was a private line and he had no telephone of his own. This occurred so often that one day he said to me, when I refused to give him a connection, "I'll get even with you and your company." I said, "What will you do?" He replied, "I'll put in a telephone of my own," and he did; he has one to this day.

So the business went on increasing until the grounded line was changed to metallic circuit equipped with Blake transmitters, which was later on changed to the solid back, and then to the common battery system of to-day.

Troy had the first up-state common battery board, which was installed May 31, 1902. To-day we have in Troy 2,267 lines with 4,319 stations.

The New Buffalo Toll Board

By F. L. Jackson, Asst. District Traffic Chief, Buffalo, N. Y.

IN order to provide adequate facilities to care efficiently for the increasing toll traffic due to the rapid industrial and agricultural development within the area which is served by the Buffalo Toll Central Office, the toll board was cut over to its new quarters on the third floor of the new Telephone Building, corner of Church and Franklin Streets, Buffalo, N. Y., on Saturday night, June 14, 1913, at 10 o'clock.

The initial installation consists of a No. 1 common battery, 6 panel multiple toll switchboard, which is divided into three separate lines of switchboard, of which 16 are recording positions (numbered 1 to 16 inclusive), 16 inward positions (numbered 1 to 16 inclusive) and 46 out positions (numbered 61 to 106 inclusive).

The supervisory and information equipment consists of one double sided Chief Operator's desk, 13 supervisors' stands, one 4 position double sided directory desk, one 2 position single sided ticket filing table, and one sound proof repeating booth.

The toll switching trunk multiple contains 300 jacks of 20 per strip, of which 175 are in use for order circuit trunks to the 7 local city offices. These trunks with their associated order circuits are duplicated on the 3 divisions of the board.

The toll trunk multiple contains 380 jacks in positions 61 to 82 inclusive and 280 jacks in positions 83 to 106 inclusive on the out board; and 380 jacks on the inward board. These jacks, which are of 20 per strip, are equipped with visual busy signals. At present there are 177 jacks in use for toll trunks; 13 per cent. are to points on the other side of the international boundary in the territory of the Bell Telephone Company of Canada.

A multiple of 100 jacks of 20 per strip, for desk and inter-position lines appears on the 3 boards. There are 77 of these jacks in use on the in and recording positions, and 35 jacks in use on the out board.

The recording trunk multiple contains 80 jacks, of 20 per strip, of which 68 are in use for direct recording from the city offices. These trunks, which are automatic, are arranged to give a peremptory disconnect signal to the "A" operator when the recorder releases the recording trunk.

Night or light load transfer keys are provided on the recording trunks which throw the recording trunk signals to a corresponding recording

REST ROOM—NEW SENECA EXCHANGE, BUFFALO.

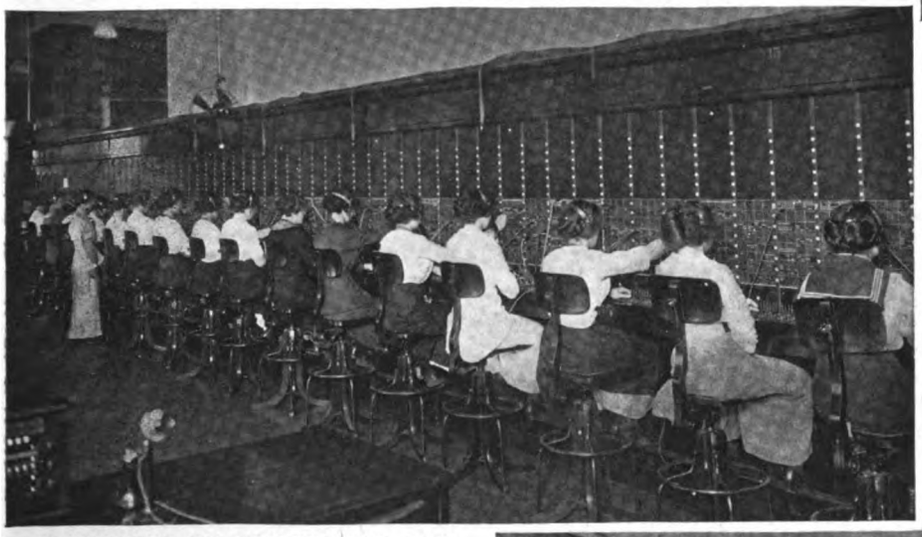
Digitized by Google

trunk multiple on positions 64 to 66 on the out board at night. This multiple contains 140 jacks of 20 per strip and appears on the above positions only.

All toll trunks terminate on the in board where there are 3 classes of answering jacks, viz: primary, multiple and night or light load. There are 810 jacks of 10 per strip, of the first and second class of which 488 are in use. The night or light load multiple contains 180 jacks, 20 per strip, on which all toll trunks terminating on and from position 9 to position 16 may be answered after the transfer keys on the primary answering jacks are pulled out. These jacks appear on positions 1 to 5, and at present 39 are in use.

Each answering jack on the in board is equipped with a transfer button under line signal, which, when operated on requests for connection with the out or ticket operator, signals that operator in the secondary answering jack on the out board and the light restores when the out operator answers.

SECTIONAL VIEW OF OPERATING ROOM—"A" SWITCHBOARD WITH INFORMATION DESK IN MIDDLE FOREGROUND.—NEW SENECA EXCHANGE, BUFFALO.



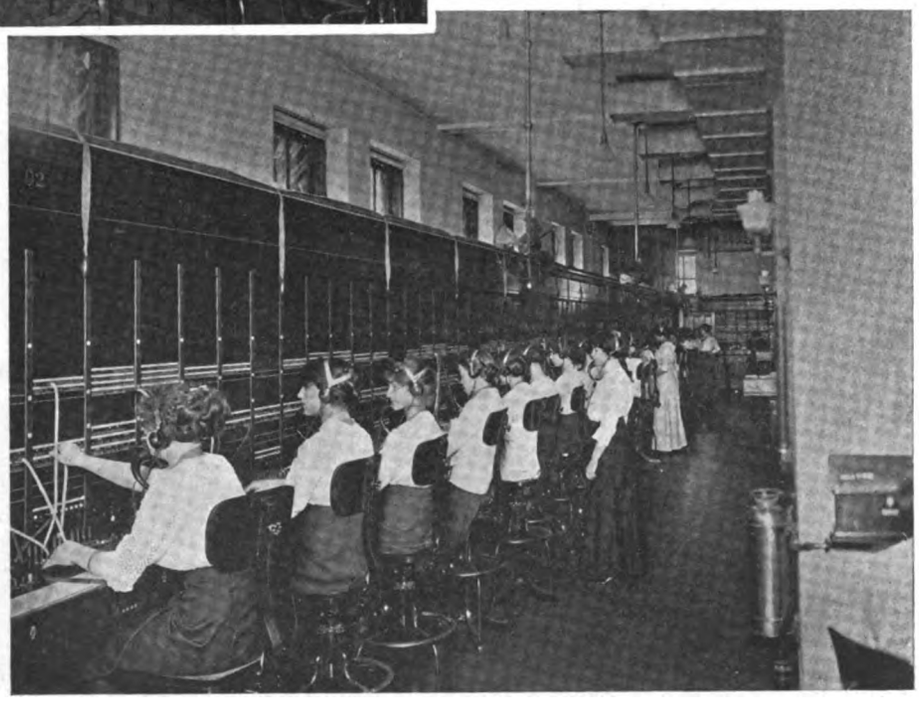
SECTION OF "B" SWITCHBOARD—NEW SENECA EXCHANGE, BUFFALO.

The keyboard equipment on the recording positions consists of 8 single cords and 3 pairs with combination talking and holding keys with two supervisory signals to each cord, one of which is controlled by the calling subscriber and the other signals when the out operator picks up the toll switching trunks on which the recorder is holding the calling line.

The in positions keyboards are equipped with 16 pairs of cords with

The answering jack equipment on the out positions which are in use contains 550 jacks of 10 per strip, of which 328 are in use for secondary and night or light load secondary toll trunk answering jacks, and in addition there are 9—2 No. recording answering jacks for trunks from the city offices with 9 night or light load answering jacks.

While all positions are fully equipped there are, however, at present 5 recording positions in use, and 10 inward positions covered during the busy hour. On the out board 7 positions are in use for 2 No. line and recording, and 18 for outward particular person calls; two of these positions are devoted entirely to Canadian business.



SECTION OF TOLL SWITCHBOARD—NEW SENECA EXCHANGE, BUFFALO.

Digitized by Google

their corresponding supervisory signal; with each pair of cords is associated 3 keys, one two way ringing key, one two way monitoring key and one combination monitoring and listening key.

The out positions are equipped with 12 pairs of cords with corresponding supervisory signals and 3 keys as described for the in positions.

Standard operating methods are employed at Buffalo and about 99 per cent. of all originating traffic is handled under Operating Method 103 of which 57 per cent. is 2 No. business.

The longest direct toll trunk from Buffalo is to London, Ont., Canada, a distance of 145 miles; Toronto, Ont., 107 miles, and Rochester, N. Y., 70 miles, are the next longest.

Seneca First Buffalo Exchange

ON Saturday, June 28, at 10:00 P. M., the Seneca central office was cut over from the old quarters on Seneca Street to the fourth floor of the new Telephone Building at the corner of Church and Franklin Streets, Buffalo.

The switchboard equipment consists of a No. 1 common battery switchboard with a capacity of 10,000 lines, 5,600 of which are now equipped. There are 62 "A" positions, 4 of which are used for the Company P. B. X. Seventeen "B" positions are installed and 13 are now working. The ringing equipment is standard mechanical locking for 4-party selective ringing.

The desk equipment consists of a Central Information desk of 20 positions, a 4-position central complaint desk, an Assistant Chief Operator's desk provided with service-observing equipment, a Chief Operator's private desk and a Traffic Chief's private desk.

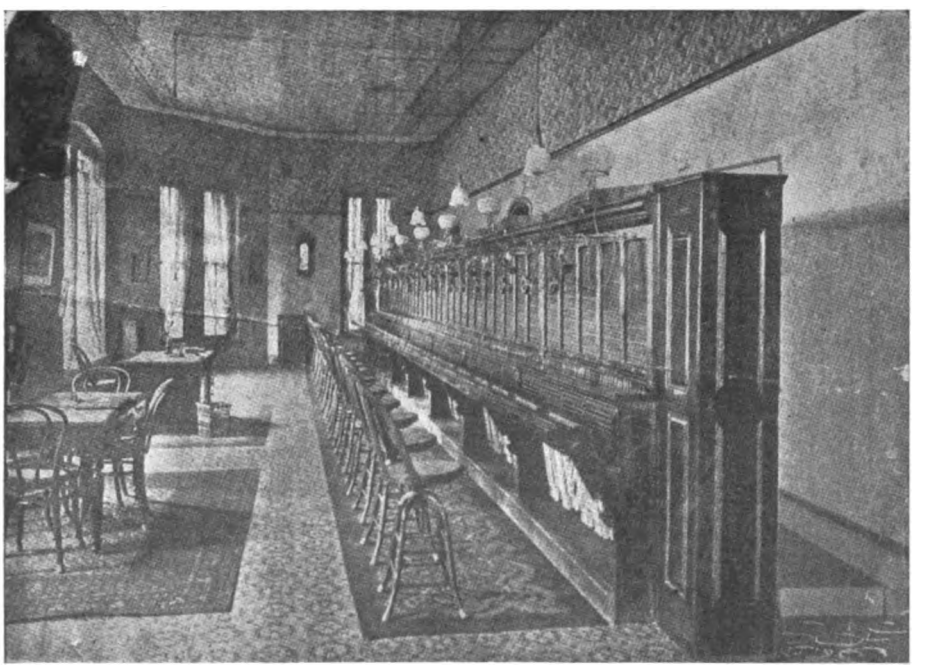
The Seneca exchange was the first established in Buffalo. The district served includes the greater part of the business section of the city with its department stores, hotels, offices and great land and water shipping interests.

An Old Switchboard

THE accompanying picture printed in a Buffalo newspaper in 1888 will refresh the memories of the old and give the younger employees a good idea of the first telephone switchboard in the Seneca Building, Buffalo. It was found recently in an old scrap book by a young lady employed in the cashier's office, Buffalo.

Twenty-five years has seen many changes in the various kinds of telephone equipment. Step by step the apparatus has been improved and elaborated, until we almost feel that it is as perfect as it can be. But who can tell what the next quarter of a century will bring forth? At the first superficial glance this old switchboard might not seem to differ greatly from a modern one, but a close inspection shows interesting features which are not in vogue today.

The old-style transmitter, invented by the late Francis Blake, was then in use and differs considerably from the modern operator's set. Also in this old board there was but one toll or long distance position. Incidentally, it was the first multiple board in Buffalo.



OPERATING ROOM OF THE BELL TELEPHONE COMPANY, OF BUFFALO.

TAKEN FROM A BUFFALO NEWSPAPER OF 1888.

Loyalty of Rahway Operators

MISS MARGUERITE TURNER, Miss Florence Waters, Miss Annie McChesney and Miss Jennie Hornby, operators at the Rahway Central Office, are entitled to a place among our loyal traffic people who had an opportunity to prove their loyalty and did not fail to take advantage of it.

At midnight on July 7, Miss Turner, the regular night operator, suddenly found herself overloaded with traffic, the cause for which she did not know until Miss Waters, a day operator, came into the office to offer her services. Miss Waters explained that just as she was about to retire, she discovered from her window a fire in the business section of Rahway, and she knew she could be of assistance at the office.

It was not until after her arrival that the fire alarm was sounded, but in the meantime citizens who had also detected the fire had been telephoning to each other, which accounted for the rise in the calling rate which puzzled Miss Turner. Soon after, Miss McChesney and Miss Hornby arrived and volunteered their services. Miss Hornby was on her vacation at the time.

The fire gained such headway that assistance was called from Westfield. The Westfield fire department also caused a rush in traffic at that office. Most of this traffic was caused by the city officials and other members of the department calling the Fire Company together by telephone.

The following day the Chief of the Westfield Fire Department called the manager and stated that the chairman of the fire board and he, himself, wished to express appreciation of the efficient service rendered on the night in question.

Miss Anna Hess, the regular night operator, was on duty in Westfield on the night of the fire.

Miss Waters, when going to the office, did not consider wearing apparel, but she beat the alarm. When ready to return home, however, Miss Turner's mackintosh was pressed into service.

GEO. W. BEEBE,
Assistant Traffic Manager,
Elizabeth District.

Digitized by Google

FIRST ANNUAL CLAM BAKE, CENTRAL DIVISION—N. Y. TELEPHONE CO.

Central Division's Outing

IT was "The Bell Beefsteak Club" which originated the idea. This Club had had several successful beefsteak dinners during the winter. It discussed a picnic. It determined to appoint a committee to learn the possibilities of a picnic. The committee discovered a latent enthusiasm among all the men employees, from Chesterman, Cox, Kennedy and Deas, the bosses, to George, Fred, Karl and Wilfred, the messenger boys. So it was decided to make arrangements for a clambake for 200 men. The proposal was mentioned in public, advertised in the hallways. The newspapers made mention of the plan. There were 200 acceptances within three days. The order to the caterer was changed and he was told to provide for 300. In a couple more days over 300 tickets had been sold. Then the caterer was seen again, and the date was set at which the sale of tickets was to be stopped. By that date 400 enthusiasts had subscribed and more were clamoring at the door.

Anyway Utica and the Mohawk Valley sent up to the Outing at Syracuse almost as many telephone men as the original plan for the picnic called for. And perhaps that is a good place to begin the story. "The Utica Bunch," as they called themselves, came in a special electric train, arriving in Syracuse at 12:20. They paraded to the telephone building, led by a drum corps, and protected by the Telephone Company's special license to parade (?). When they arrived at the Telephone Company, the Syracuse contingent fell in behind, with Weinbrecht's band and the mounted police. The march to the terminal of the South Bay trolley was a considerable display of capable looking telephone employees. The crowd boarded four two-car special electric trains and in 30 minutes stopped at South Bay on Oneida Lake. While waiting for the boat for the transfer to the picnic grounds on Frenchman's Island the crowd was photographed.

The crossing to the Island provided no special excitement, only a little uneasiness in the minds of some, because the good old *Sagamore* acted as if she were not used to transporting such a load; and with every pulsation of the engine the entire deck of the boat thrilled and heaved.

We were no sooner on the Island than the ball game was commenced. There is something about a ball player that makes him jealous of the other team, jealous of the umpire, jealous of his team-mates. All our ball players were so jealous of everything and everybody that they positively seemed irascible. Every decision of the very capable umpires seemed wrong to someone. It was really quite a con-

Digitized by Google

THE "UTICA" BUNCH BEFORE THE START FOR SYRACUSE.

AN ARGUMENT.—"OUT."—CENTRAL CLAM BAKE.

test, and they fought hard every minute because the winning team was to receive a real $20 gold piece to invest in uniforms and equipment; and it was by no means a walkaway for the winners, every moment of every inning leaving the result in doubt. The final score at the end of the sixth inning, however, was an eight to four win for Syracuse.

Immediately following the ball game the Tug-o'-War was staged. The Syracusans might play good ball, but when it came to beef and brawn Utica dragged them all over the field. The Utica team, captained by John Richardson (weight 350 pounds) easily handled Captain Louis Frost's team from Syracuse and carried away the prize of a box of cigars.

By this time, although a long program of other events was scheduled, the dinner was announced, and everyone after his light and early lunch was willing to forego the contests to be present at the bake. The bake, although furnished in Syracuse, was a typical New England Clambake with clam chowder, steamed clams, green corn, blue fish, chicken and sweet potatoes, baked lobster, and watermelon. This menu consumed two hours.

After dinner the other field events of the day were carried through.

NOT A HOME RUN.—ONLY "STRIKE THREE."—CENTRAL CLAM BAKE.

Shoe Race was won by Trever Jones, first, and Fred Cholot, second.

One Hundred Yard Dash was won by T. Filkins, first, and T. Supple, second.

Fat Men's Race was won by Fred I. Shepard, first, and Burt La Du, second.

Slim Men's Race was won by T. Supple, first, and T. Filkins, second.

Three-Legged Race was won by Campion and Grambow, first, and Darragrand and Goddard, second.

Potato Race was won by T. Supple, first, and F. Darragrand, second.

Some sharp practice was noticed in these races, as, for instance, when "Hank" Macey, seeing that his physique would not hold out to win the Fat Men's Race, fell down, and obtained a prize of a necktie for being last man. In the Slim Men's Race L. A. Wilcox tried the same tactics, but learned after soiling his clothing in the dust that there was no booby prize.

The picnic was held on the beautiful Frenchman's Island, cleared of its forest over 100 years ago by the romantic M. Desvatine, a French refugee, whose wife was a daughter of the noble House of Clermont, and disowned because of her marriage beneath her station. The Desvatines lived on the island for seven years, later returning to France after they had been searched out and forgiven by the father. It was after this Madame Desvatine of the House of Clermont that Robert Fulton named the first steamboat.

First Division Get Together Day

NEARLY 10,000 employees, their families and friends attended the first Western Division Get Together Day at Erie Beach, Canada, just across the Niagara River from Buffalo, on July 12. For several weeks a committee composed of C. W. Little, District Traffic Chief at Buffalo, and representatives from the Buffalo, Rochester and Jamestown Districts, had been busily at work, and the great success of the occasion is largely due to its efforts.

Early in the morning the clans began to gather, and by noon it was plainly seen that the Western Division was going to invade Canada in large numbers. At about one o'clock a storm dampened the ardor of the crowd temporarily, but by 2:30 it had

Digitized by Google

COMMITTEE OF ARRANGEMENTS AND OFFICIALS FOR ATHLETIC EVENTS.—WESTERN "GET TOGETHER."

cleared away, and the onward march to the beach was resumed.

The traditional rivalry between Buffalo and Rochester was very much in evidence and the Jamestown contingent despite their smaller representation made it plain that they also were on the map. Buffalo with its larger numbers was enabled to carry off most of the athletic events, but they were hotly contested. The afternoon concluded with a baseball game which was interesting despite the one-sided score.

The gathering then adjourned to the casino restaurant and disposed of a goodly amount of provisions.

During the evening an elaborate display of fireworks was held, and the casino with its huge dancing floor was a "busy" place until the wee sma' hours when the crowd began to head homeward.

The results of the athletic events follow:

Baseball Game. Rochester 2, Buffalo 11.
Shot Put. 1st, Frank Diehl; 2nd, M. F. Lotz; 3rd, F. G. Johnson.
Rope Throwing Contest. 1st, M. F. Lotz; 2nd, R. W. Zimmerman; 3rd, P. F. McNeil.
100-Yard Dash. 1st, F. G. Johnson; 2nd, W. J. Phillips; 3rd, A. V. Ednie.
Candle Race (men). 1st, G. W. Robinson; 2nd, J. J. Percivall; 3rd, C. Westcott
Candle Race (ladies). 1st, Miss K. Moore; 2nd, Miss G. V. Vail; 3rd, Miss M. Belzer.
220-Yard Dash. 1st, F. J. Leigh; 2nd, W. J. Phillips; 3rd, F. A. Becker.
50-Yard Dash (ladies). 1st, Miss G. V. Vail; 2nd, Miss Braunschwieg; 3rd, Miss Kirk.
½-Mile Run. 1st, Joe Mohl; 2nd, W. J. Phillips; 3rd, F. A. Becker.
½-Mile Departmental Relay Race. 1st, Plant Dept.; 2nd, Commercial Dept.
Fat Men's Race (210 lbs. and over). 1st, E. Meiss; 2nd, J. Anton; 3rd, C. W. Rosengrant.
Tug-of-War. Buffalo defeated Rochester.

THROWING THE BASEBALL.—A LADIES' EVENT.—WESTERN "GET TOGETHER."

A Telephone Golf Tournament

SATURDAY P. M., July 19, 1913, the national game of Scotland held the sward for numerous telephone men at the Onondaga Golf and Country Club, Syracuse. The members of the Onondaga Club from the Telephone Company took advantage of Plant and Traffic conferences to hold an Up-State Invitation Handicap Golf Tournament. In addition to the Plant and Traffic entrants, other players from the Buffalo and Albany Commercial Departments accepted invitations. There were 15 entries all together, and the play was on a handicap basis, with prizes of golf balls—9 balls for the low net score, 5 balls

F. G. JOHNSON WINNING 100-YARD DASH.—WESTERN "GET TOGETHER."

50-YARD DASH—LADIES.—WESTERN "GET TOGETHER."

Digitized by Google

for the second low net, and a ball for highest net.

H. P. Miller, Commercial, Hudson, won the first prize with 97—15—82. P. O. Jacobs, Plant, Western, won second with 123—40—83. E. H. Powley, Plant, Albany, won the "booby" with 114—15—99, being slightly off his game.

After the game all the players, with various additional guests from the Syracuse office, together with several New York men, had dinner at the Club. Several of the players stayed over for the game on Sunday.

N. Y. T. A. C.

A MEETING of the New York Telephone Athletic Club was held at the Club Room, 138 Spring Street, Manhattan, on July 25. After the regular meeting there was an interesting entertainment consisting of selections by the Blue Bell Orchestra, solos and piano selections, feats of juggling and other specialties.

The organization is growing fast and now has 520 members. Those who desire to join are cordially invited to attend meetings which are held on the second and fourth Fridays of each month at the above address.

Baseball

The standing of the baseball teams is practically the same as last month owing to the fact that the vacation season has caused a cessation of hostilities until the fall series in September. Several of the nines have been keeping in trim by games with outside clubs.

On August 23 a picked team from the league will cross bats with the General Electric Co. aggregation at Schenectady.

Tennis

Arrangements have been made whereby two tennis courts in Central Park will be available for the use of members of the Club each Saturday afternoon for the rest of the season. This privilege will also be given on Sunday mornings if a sufficient number are interested.

The Club will furnish the tennis balls, and full information may be obtained from any of the following committee: F. W. Heitkamp, Plant Cons. Dept. (chairman); J. C. Axtmann, Plant Acctg. Dept.; R. Barnes, Treas. Office, and J. Russell, Eng. Dept.

It is planned to hold a tennis tournament later in the season.

B. T. A. A. of N. J.

THE Bell Telephone Athletic Association of New Jersey held its third regular monthly meeting June 19, at Iroquois Hall, Newark. After the regular order of business had been transacted, Mr. I. J. Thorp, Division Plant Superintendent, gave a short talk introducing several anecdotes, which, together with his repartees to the presiding officer, kept the gathering in good humor.

Mr. F. E. Congdon, Division Equipment Superintendent of the Metropolitan Division, and District Superintendents Miller, Schrader and Cranmer of New Jersey, were with us and expressed their appreciation of the strides the organization has taken since its inception.

A pleasing musical program preceded the customary wrestling bouts and other athletic features. After the entertainment a light lunch was served.

The Organization Baseball Team has performed in a manner beyond our most sanguine expectations, holding a standing of 10 wins, 6 losses and 1 tie among the strongest semi-professional ball teams in the state.

The team is playing the game that should encourage support from every one affiliated with the Company, and a strong plea is made for a large attendance during the remainder of the schedule.

The Association has secured Olympic Park, Newark, for August 16, when the first field day of the Club will be run. A total of 15 events are scheduled, including a five-inning baseball game between the "Regulars" and some of those who think the game is played as it was twenty years ago.

The admission to the grounds, which includes a seat at the opera and entry to two other amusements, is 25 cents, a fee so nominal that it affords whole families a cheap and interesting outing.

Englewood Team

THE New York Telephone Company Baseball Team at Englewood, has suffered two defeats to one victory in its last three games. On July 8 a good game was played against the A. B. T. of Grantwood, resulting with a score of 8—2 in favor of the telephone boys. The Arrow A. C. of Palisades Park, however, administered on July 19 a severe beating to the tune of 15—4. At Paterson on July 26 the local telephone team of that place downed Englewood by the margin of 15—10. The Englewood boys are not discouraged, however, and expect before the season closes to have a first-class team. — W. W. THOMPSON, Englewood.

The Wonders of the Telephone

BY HERBERT N. CASSON,
In *The Mountain States Monitor.*

The telephone business is not like any other business on the face of the earth. It is the most remarkable combination of science and mystery, of human and mechanical, of wire and wits, of highly skilled specialists and the general public.

Any little child can be the engineer of a telephone talk-train. Any little baby can send its cooings hundreds of miles along the wire to its father at the other end. And yet, at the mystery end of the telephone, not even John J. Carty, master of telephone science, can explain, or even comprehend, some of the phenomena of a telephone exchange.

I once asked Alexander Graham Bell if he really understood the workings of a telephone receiver, and he replied: "Why, of course not. Nobody does." I also asked Mr. Emile Berliner if he could explain exactly what happened in a telephone transmitter, and he replied, "No, I can't. It is as great a mystery to-day as it was thirty years ago."

Think of the marvel of it! Here is an intricate network of wires and disks and electric currents and electric lights and keys and jacks and bells and cords and cables. This mechanism is so delicate that it is actually operated by the slightest sound. It is not set in motion by steam or gasoline, but by *breath.* The slight vibration of the vocal cords is actually the power that puts the vast telephone mechanism in operation.

A telephone system is an immense and widespread mechanism of voice machinery. There is nothing else like it. It stands by itself as a marvelous thing which anyone can use, and which nobody can understand.

So, the telephone business is fascinating because there is no end to it. The job is always bigger than the worker. There is always more to learn. No matter how wise we are, we can never be quite wise enough. And no matter how hard we think, the thing will always be a little bigger than the thought.

The telephone business branches out into the great new field of electrical science. It branches out into the field of voice study and elocution. It links itself to the metal trades and the rubber business. It is half indoor and half outdoor. It goes everywhere. It concerns everybody. Like the rain, it benefits alike the just and the unjust. And it has become so necessary that any family today without a telephone is in the dumb animal class and behind the times.

Telephone Selling

Great things can be done with the telephone. Quiet morning hours come to all of us. That's the time your local asparagus arrives. It looks very handsome. It's that long, thick, tender "green grass"—special today, 30 cents. Twenty or thirty bunches can be sold in ten minutes. Berries, spinach, lettuce, string beans the same. Make your counter telephone pay its way. Besides, just because there are no customers in the store doesn't mean "quiet hours." There aren't any in the grocery business. With us telephone work comes properly into play. * * *.—*Retail Grocers' Advocate.*

Digitized by Google

The Summary

Suggestion by Geo. W. Hoffman, Evening Manager, Lenox Central Office

IN suggesting the above as a heading for our short item pages, Mr. Hoffman says: "By using the caption, 'The Summary,' you get the idea which embodies the summarizing of results, and that we can express our thoughts and facts clearly in a brief, concise and interesting manner."

Mr. Hoffman has the idea exactly, and, of course, so have a great many of our friends, to whom we are indebted for the items which fill these pages month after month.

There are still, however, too many who either do not understand that communications for *The* TELEPHONE REVIEW are not expected to be supervised by their superiors, but sent direct to the editor, or who hesitate to make their first attempt at writing for publication.

If all felt like that, we should never have enough material to get out a paper at all.

We again invite every one to follow the good example of our contributors who have been making *The* TELEPHONE REVIEW such an interesting publication, and then the magazine will really be what Mr. Hoffman calls these pages—the summary of results, and the expression of thoughts and facts from every department and territory of the company.

New Hotel With Complete Bell Service

The Hayward Hotel 19 Clinton Avenue South, Rochester, N. Y., which has just been completed and opened for business, is equipped with Bell telephones in all rooms and facilities for handling public telephone calls.—"TRAFFIC," Western.

Bronx Notes

Over 3,500 stations gained in the Bronx during the first seven months, more than a monthly average of 500.

A new Commercial Office opened on June 1 in the Tremont section in charge of Local Commercial Manager P. E. Mahony.

A public telephone placed last year at the extreme point of City Island, found to be a friend in need on July 5 to the sinking steamer John P. Wilson of the Merchants' Steamship line.

A public telephone placed on Pelham Road Bridge for the sole convenience of Automobilists. As many as 6,000 automobiles cross this bridge in a day.—J. BRACKENRIDGE, Dist. Com'l Mgr., Bronx.

Service

I called on one of our subscribers who has a garage and this is the way be received me: "Mr. O'Donnell, I want to thank you for inducing me to change my service from Party to Direct. I want to say that I don't see how I could have handled my business without the Direct line service. I find now that I can make many trips and never find the signal block against me, I have a clear track at all times. Now I am going to move into my new garage and will want three side track stations added to my main track, equipped with the Modern Switching Device so that we can communicate between the side track stations and the main track will be clear to the main station."

Rural Development

Great achievements have been accomplished on Rural Telephone work, including small Country Towns. It is one of the Greatest Factors for the Development of the City Exchange. No City is independent of the Farmer. Therefore, Rural Development is most essential for Economy and Progress.

Our Linemen Make Friends

We have just completed a Rural Line on the South Dayton Exchange and the people there are singing the praises and complimenting our men upon the work they have done. They were sorry to see the "Boys" move as they enjoyed their jovial, happy, good-natured dispositions very much and were ready to be of service to them at any time. They also made mention of the installers, how neatly, cleanly and carefully they did the work of installing the instruments in the houses, and the interest they took in explaining to the subscribers the mechanism of the telephone and how to manipulate the different code rings.—R. B. O'DONNELL, Agent, Jamestown, N. Y.

A Chance for Education

On visiting a subscriber's station, her next door neighbor hailed me with the following: "Say, are you the telephone man?" "Yes." "Well, I want you to take that cable off my back fence; I would have chopped the darn thing off long ago if I wasn't afraid of it leaking all over my garden." I promised her I would take it up with my foreman.—BROOKLYN PLANT.

Opera to Hospital Patients

When "The Telephone Girl" was recently sung in Albany, the opera was transmitted by special circuits and apparatus to the wards of the city hospitals where many patients were afforded an unusual treat. The circuits were run successively to three hospitals for a week each and to the Tuberculosis Camp of the Albany Hospital, three miles out of the city, for the final two weeks. These long-term patients were especially appreciative. Five transmitters were suspended in the theatre and watch case receivers were used at the hospitals.—S. H. BROWN, Local Manager, Albany.

Telephone Reduces Cost of Living in Montclair

The Harrison Market at Montclair, N. J. (our P. B. Ex. subscribers to Montclair 1854), since establishing their telephone order department a few months ago have been able to dispense with four wagons and the services of three men. Where they formerly ran six wagons they now secure the same results with two wagons and an automobile, using the automobile on long deliveries. The education of their customers was gradual, the proprietors taking one route at a time and notifying them by telephone what was proposed and explaining the advantages which would result in the way of lower prices and more prompt deliveries.

Mr. Kauffman, the treasurer of the company, informed me that their weekly profits have been increased to a considerable amount.

With the co-operation and assistance of our Advertising Department we were able to offer suggestions for suitable advertising which were appreciated by the Harrison Company. —C. A. WOOLSEY, Local Commercial Manager, Montclair.

Telephone and Telegraph Aid Newspaper Men

During the recent Sing Sing Prison storm the telephone and telegraph wires were kept a-humming. News reporters who camped on the ground for several days telegraphed and telephoned their long stories which were rushed to their various offices without loss of time or any lack of facilities. Every employee responded most willingly, some working considerably overtime.—J. M. REYNOLDS, Agent-in-Charge, Ossining Office.

Digitized by Google

An "Ear-Lap" Wanted

About two months ago, a subscriber came into the office and asked that an "ear-lap" be attached to his telephone. Inquiry developed that he meant a head receiver and the order was accordingly forwarded.—D. J. O'KANE, Orchard Commercial.

Making Change

Recently while making coin box collection in the Mt. Kisco Hotel, the collector was accosted by a patron who said, "I have made a bet with this gentleman, and we have agreed to abide by your decision."

The collector, after receiving the assurance that by rendering his decision he would not in any way injure his present rating as a Sunday School teacher, told them to fire when ready.

The patron then said: "I informed my friends here that if I put a quarter in this slot machine, and asked central for a 10 cent call, she would return me 15 cents change." The collector replied, that while the Telephone Company and the girl operators perform wonderful things, still the height of perfection, such as making change at slot machines, has not as yet been attained, and this is something in which our patrons can excel us.

This decision was accepted by both parties and the collector received several good cigars, but not being addicted to the weed presented them to his superior.—H. W. CORTISS, Local Commercial Manager, Mt. Kisco, N. Y.

It Pays to Be Obliging

I have just received a letter from a subscriber, enclosing a check for his bill, and saying: "The operator on my line is the most obliging girl I have met. I am really sorry in a way, as it costs me money. I often telephone instead of writing. It always pays financially, as well as personally, to be obliging."—E. A. OBORNE, Local Commercial Manager, Flatbush.

"She No Giva da Connect"

An Italian whose service had been suspended for non-payment tried to pass a call during the evening and when he was told by the Chief Operator that she could not give him the connection he asked for Police Headquarters. As no questions are asked on such calls, he reached the Sergeant on duty, who was much surprised to hear some one say: "Heigh, Sarj, go arrest Cent. She no giva da connect. She no giva da connect."—W. HILLS, District Manager, Kingston.

Telegram by Telephone Saved Unnecessary Trip

We recently had a case which caused very eulogistic comment by the sender of a telegram which was filed at the Joint Office, and to which a reply was received and delivered by telephone within 25 minutes. What particularly appealed to the sender was the fact that the Morse Operator, knowing he was expecting to leave Englewood Station by a certain train, telephoned the Station Agent, describing the person wanted, who was found and brought to the telephone. The reply to his telegram was read to him and this saved him from an unnecessary journey. Thus are the seeds which develop into good will, sown by the company's employees daily all over its territory.—H. BELL, Local Com'l Mgr., Englewood.

P. B. X. in "Chatsworth Apartments"

The "Chatsworth Apartments," located at Third Avenue and Fourth Street, Mt. Vernon, is the first apartment house in this city to be equipped with Private-branch-service throughout.

The Mount Vernon Holding Co. (owners) are sparing no expense to make this one of the finest and well appointed buildings in Westchester County.—A. V. SEDGWICK, Mt. Vernon Com'l.

Information Calls

Schenectady Information is occasionally confronted with problems such as the following:

"Say Information, can you tell me how much I'm paid an hour? I work four days in the week, four hours each day and I get $4.00.—(Miss) A. DELANEY.

He Knew What He Wanted

An amusing incident occurred at the exchange at Angelica, N. Y., a few days ago, when an old farmer called in and the following dialogue ensued: Operator—"Number, please." Subscriber—"I want to talk to Sam Jones at B——, on a *relief* ticket." With customary politeness, such as always graces the operators here, the "hello girl" replied, "What kind of a ticket did you say, sir?" "A RELIEF ticket!" growled the man. "Will you please explain what you mean, sir?" "Why, I mean that I want the fellow at the other end to pay for it," the answer flashed. And 'twas then that it dawned upon the operator what the subscriber was driving at, and the regulation "collect" ticket call was put through without further delay.—(Miss) BESSIE CAMPBELL, Ch. Op., Allegany County Telephone Co., Angelica, N. Y.

Advertising Bell Telephone Connections

A few weeks ago we checked up all the newspaper advertisements of merchants and others having our service who failed to mention telephone connections. We sent personal letters to them calling attention to the omission, stating among other things: "Many merchants are making a strong point of advertising their telephone connections, and are encouraging trade by telephone. I am calling your attention to this matter, as I think possibly the omission of 'Telephone Connection' is an oversight on your part." In following up this matter, it was gratifying to note that a very large percentage responded, some specializing their telephone service, featuring "Shopping by Telephone." Quite a number sent written acknowledgements, thanking the New York Telephone Co. for its interest in the matter.

Pay-As-You-Enter-Telephone

The Schenectady Railway Co. recently installed some Pay-As-You-Enter cars, which is a new thing for the city. A gentleman called at the local commercial office soon after their advent, and in all seriousness asked to have a Pay-As-You-Enter-Telephone put in his place of business. A public telephone was promptly installed.—F. M. COZZENS, Local Manager, Schenectady.

The Voice with a Smile

A physician in Germany was fined in court the other day for calling a telephone girl a "camel." That may not seem to a user of the English language a highly opprobrious epithet. But the ways of the German idiom are strange. In it to say "Kameel!" to the divinity at the switchboard is about like saying in English, "You bone-headed chump!"

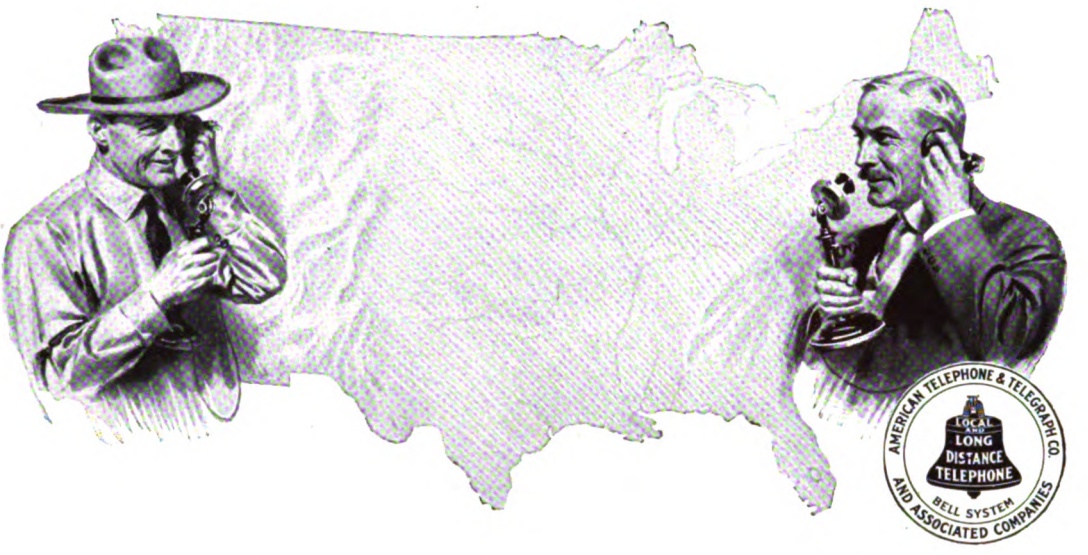
Of course, such a breach of the proprieties in intercourse with Central is pretty nearly unthinkable here in New York. Before we had grown used to telephones there were many lapses from grace. But now urbanity has triumphed over irritation. The telephone company has eloquently testified to our regeneration by posting the sign everywhere about its offices and branch offices, "The voice with the smile wins." It has won, because it was bound to win. New York's manners have been smoothed and softened by the ubiquitous proprietress of the "voice with a smile."—N. Y. *Tribune* (Editorial).

Emergency

A telephone's the one best bet
In an emergency,
When trouble comes and dangers fret,
A telephone's the one best bet
When stern conditions must be met
With utmost urgency
A telephone's the one best bet
In an emergency.

—*Telephone Engineer.*

Digitized by Google



The Merger of East and West

"But there is neither East nor West, Border, nor Breed, nor Birth,
When two strong men stand face to face, tho' they come from the ends of the earth!"
—KIPLING.

In the "Ballad of East and West," Kipling tells the story of an Indian border bandit pursued to his hiding place in the hills by an English colonel's son.

These men were of different races and represented widely different ideas of life. But, as they came face to face, each found in the other elements of character which made them friends.

In this country, before the days of the telephone, infrequent and indirect communication tended to keep the people of the various sections separated and apart.

The telephone, by making communication quick and direct, has been a great cementing force. It has broken down the barriers of distance. It has made us a homogeneous people.

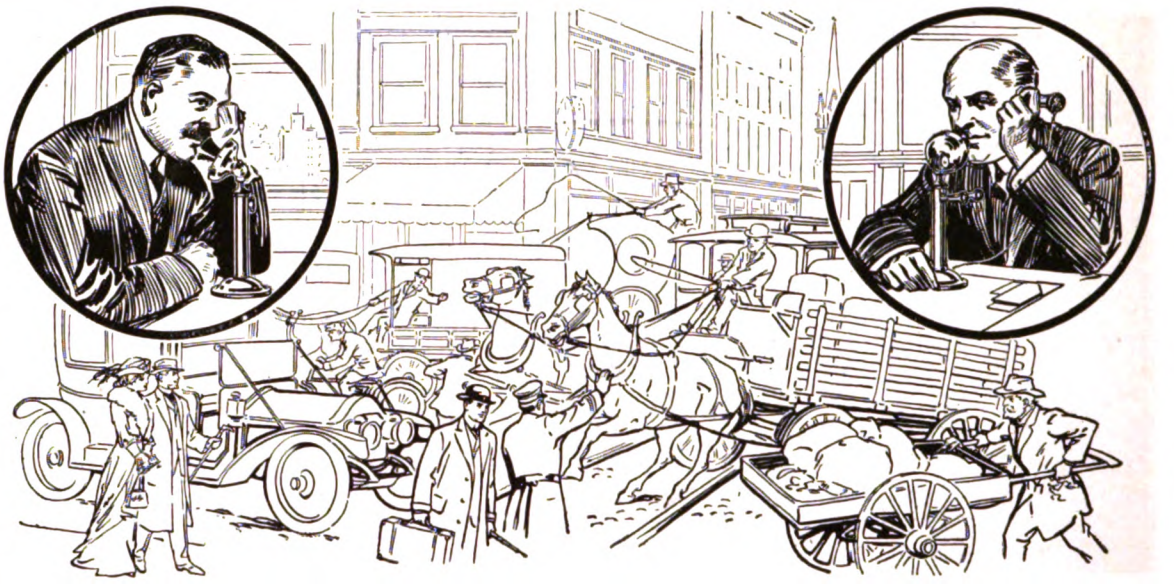
The Bell System, with its 7,500,000 telephones connecting the east and the west, the north and the south, makes one great neighborhood of the whole country.

It brings us together 27,000,000 times a day, and thus develops our common interests, facilitates our commercial dealings and promotes the patriotism of the people.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google



Why Walk? Just Talk!

WE DO things the hardest way sometimes! Those tiresome trips about town, for instance, take a lot of time and energy when made in person, and when the destination is reached possibly waits, delays, and disappointments make the trip seem all the harder.

The telephone saves *all* the labor of traveling, whether you wish to go a short distance or a long distance. It carries you at once, almost anywhere and back again. It gets you out of the habit of doing things the hard way because telephone traveling is so easy and yet so resultful.

Why not TRAVEL BY TELEPHONE and avoid those tiresome trips about town?

AMERICAN TELEPHONE & TELEGRAPH CO. — LOCAL AND LONG DISTANCE TELEPHONE — BELL SYSTEM AND ASSOCIATED COMPANIES

Don't Walk—Just Talk—by Telephone

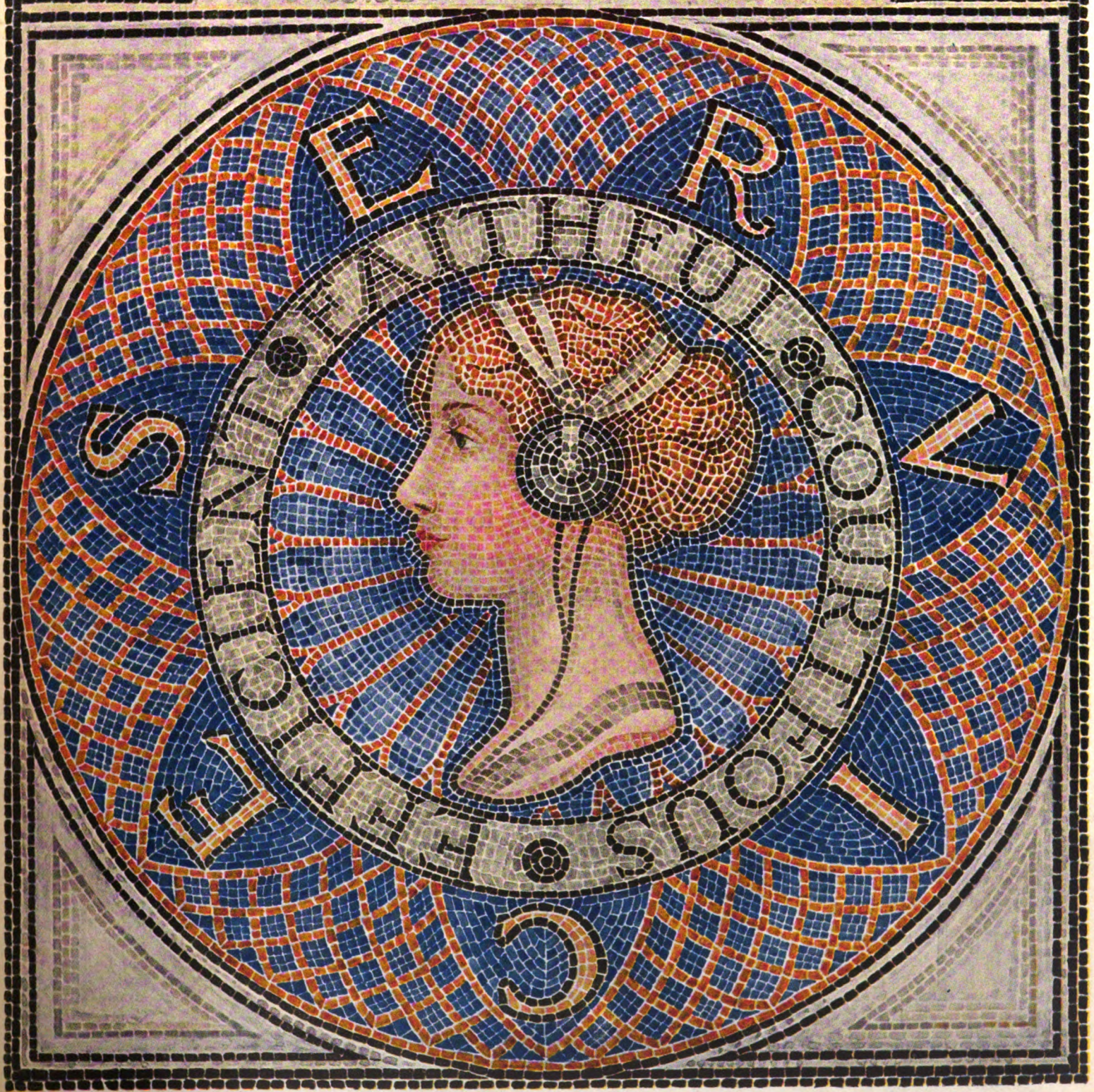
NEW YORK TELEPHONE COMPANY

Digitized by Google

THE TELEPHONE REVIEW

Vol. 4
No. 9

September
1913



Digitized by Google

"Don't Walk in the Sun —Talk in the Shade"

Why take those tiresome trips about the city during the hot weather to *see* a man when what you really want to do is to *talk* to him?

Public Telephones conveniently placed *wherever busy men may be* will save those tiresome walks in the sun, give you quick, *cool* and satisfactory round trips to nearly any place, and help you to complete the day's work with the least possible waste of time and energy.

Why not let the Telephone do *your* traveling this Summer?

Don't Walk in the Sun. Just Look for the Blue Bell Sign and "Talk in the Shade."

NEW YORK TELEPHONE COMPANY

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV | NEW YORK, SEPTEMBER, 1913 | NUMBER 9

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor

VOL. IV SEPTEMBER, 1913. No. 9

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

Public Opinion

In all times, in all lands, public opinion has had control at the last word—public opinion is but the concert of individual opinion, and is as much subject to change or to education. It is based on information and belief. If it is wrong, it is wrong because of wrong information and consequent erroneous belief. It is not only the right, but the obligation of all individuals, or aggregation of individuals, who come before the public to see that the public have full and correct information.

THEO. N. VAIL.

THE foregoing is an extract from Mr. Vail's Annual Report for the year 1911. We have quoted it before, but reproduce it now as introducing the advertisement of the American Telephone and Telegraph Co., signed by Mr. Vail, which is being printed in newspapers throughout the United States and which we reprint in this issue.

Before other companies adopted the policy of publicity which has become the recognized principle of modern business, the American Telephone and Telegraph Co. had led the way and had begun the upbuilding of the favorable public opinion which it enjoys to-day to a degree that is probably unequaled anywhere in the world.

Mr. Vail was also the first to "advocate state or government control and regulation of public utilities." Bearing these facts in mind, our fellow employees will have a better comprehension of Mr. Vail's statement, and our influence upon our friends and business associates will be in proportion.

The summary of facts presented by Mr. Vail and the assurances that are embodied by him in this statement probably constitute it the most advanced and remarkable step that has ever been taken towards giving the whole world a clear insight into the policies and practices of the company. It should establish for all time the mutual relationship and unity of interests between the Bell System and the public.

What the Bell Organization Has Done

For the Public

IT has practically annihilated the handicaps of time and distance in business and social activities and brought 7,000,000 offices and homes into speaking connection with one another through the Bell System. This has not been done by any other system or in any other country.

From 1895 to 1913 it has decreased the average exchange rate per telephone 60% while the average service rendered or the number of telephone stations in the average exchange has been multiplied by 5½.

It has increased the distance for practical telephone speaking from less than 100 miles in 1885 to more than 2,000 miles in 1913. This has resulted from the improvement of methods and apparatus by the experimental and research departments.

Through its relations with the Western Union Telegraph it has given the public improved telegraph service, day and night telegraph letters, daily and week-end cable letters and has reduced rates for plain language deferred messages.

It has increased the radius for delivery of telegraph and cable messages and through telephone connection it has given everyone night and day telegraph service.

For the Employee

IT has set up a decent living wage for work performed under sanitary and comfortable conditions and has provided for sickness, disability, injury, old age and death in a broader spirit than has yet been done by any corporation or government.

Answering Back the Operator

WE are continuing to receive comments upon our editorial in the April number entitled "Set the Example."

On another page we print a communication from Mr. J. L. Turner of the Traffic Rules Committee of the company on this subject.

We have inquired of a number of persons who use the telephone frequently and find that there is no uniformity among them in the manner of answering the operator, each following his humor—but all of them generally making some acknowledgment.

This is also true to a large extent in regard to the method of closing a conversation.

In acknowledging the repetition of the operator, the answers vary from "Uh-huh" to the more formal "If you please," just as in closing conversations the replies range from "S'long" to "good-by."

The traffic people tell us, however, that a very large number of telephone users do not make any acknowledgment of the operators' repetition, and we suppose that these same people are equally lax in indicating when a conversation is finished.

It would, of course, be a great aid to traffic if employees would observe the recommendations in Mr. Turner's article and induce their friends to do likewise. It may be expecting too much to hope that subscribers generally will follow any rule, but so much has been accomplished by the telephone companies in their campaign to increase courtesy over the telephone that it will be another great step gained when all users make some form of acknowledgment in response to the operators' repetition and also let each other know when they are through talking.

Wrongly Censured for Doing Right

NOT long ago an employee answered a call from a subscriber who informed him that a Plant man had forgotten his book of instructions and left it at her residence. Although in no way connected with the Plant Department, he expressed his thanks and stated that the book would be sent for promptly.

It happened that one of his supe-

Digitized by Google

riors overheard the conversation and remarked that in such cases the subscriber should be referred to the department concerned, as it was time wasted for employees in other departments to bother themselves. It is hard to believe that such a mistaken idea could be held by any employee of this Company.

According to the policies of the New York Telephone Company as laid down by its highest officials, this point of view is radically wrong. It is the duty of every employee of every department to give careful attention to any communication he may receive from a subscriber, whether he gets it through regular channels or by chance. After obtaining the facts from the subscriber, it devolves upon him to bring the matter to the attention of the proper person.

The public know us as the New York Telephone Company and not as a number of separate departments. Naturally, therefore, they expect and are entitled to careful consideration about any company matter from any employee. Of course, circumstances alter cases, and at times it is absolutely necessary to refer a person to some one else, but such cases are in the minority.

It is important, therefore, that immediate and careful attention be given when a subscriber is willing to take the time and trouble to do us a favor such as the one mentioned above.

Co-Operation in Western Division Still Continues

WE have lately devoted considerable space to the publication of the very substantial co-operation rendered to the Commercial Department by the Plant and Traffic Departments in the Western Division.

In the Buffalo District during the month of July 18 prospects were turned in by the Plant Department, from which 8 contracts were secured, and 10 by the Traffic from which 4 were secured.

In the Rochester District 22 prospects turned in by the Plant Department resulted in 21 contracts, and 7 prospects from the Traffic resulted in the securing of 6 contracts.

The Jamestown Plant reports 4 prospects and from these 3 contracts were secured.

This very practical demonstration shows that during July a total of 41 contracts in the Western Division were obtained through the co-operation of the Plant and Traffic Department representatives with the Commercial.

A System of Nerves

IT is quite customary in describing a telephone system, to liken it to the nervous system in the human body. There is, of course, a striking similarity, not the least point of which is the absolute necessity of both being governed by "One Policy," consist of "One System," and render "Universal Service."

Imagine what competing nervous systems would do to the human body!

In his treatise on "Human Physiology," which is in general use in the public schools of the country, Prof. John W. Ritchie describes the nervous system as follows:

"In reality, it [the nervous system] resembles a telephone system . . . As on a telephone system the different houses are put into communication with each other through a Central Office, so the different parts of the body are connected through the brain and spinal cord. In many parts of the body each cell is supplied with a nerve fiber, and the body has in it a perplexing network of nerves.

"By examining figure 98 [which is one of the illustrations in the book] you can understand what hopeless tangle the nervous system would become if an attempt were made to connect all the cells of the body without a brain and spinal cord to act as a Central Office."

In the book, figure 98 consists of two diagrams, one of which is described as showing "the number of wires necessary to connect twelve houses by telephone without a Central Office," and the other as showing "the number of wires necessary to connect the same number of houses through a Central Office."

The author concludes his description of the nervous system as follows: "The number of nerve fibres that would be necessary to connect all parts of the body without a brain and spinal cord to act as a Central Office can hardly be imagined."

Back from Vacation

THE vacation season is nearing its end. One by one our thousands of employees are returning armed with a coat of tan, refreshed and ready for hard work again. Some have been to country, mountain, seashore and other resorts; others have visited their old homes and there renewed old associations which brought back memories of former days.

Many say that a vacation is needed after a vacation in order to recover from the effects of the former. The correct attitude of the returning vacationist was expressed by an employee who came into our office shortly after his return. We inquired how he felt, and he replied: "Fine! I feel as though I could lick my weight in wildcats." His general appearance certainly bore out the truth of this assertion.

We venture to assert that this man, when he closed his desk, left his work behind him and determined to take a vacation in the true sense of the word. As a result, he came back in the frame of mind described above and plunged into his work as though he had never left it.

Although it may not appear so, this frame of mind is easy to get into if one adapts himself to it. Look upon a vacation with a two-fold purpose, first to rest from the labors of the year before, and second to prepare for the year to come. The year will pass more quickly than you expect, and before you realize it another vacation season will loom up in the near future.

Work, after all, is what we thrive upon, and nothing is more monotonous than continued leisure. We sometimes think how delightful it would be to have all our time to ourselves, but an experience of this sort soon teaches otherwise.

So we extend a cordial welcome to the returning vacationists, hoping they have had a good time.

The Infallible Barometer

UNDER the auspices of the New York *Evening Sun,* John Henry Mears recently succeeded in breaking the "Round-the-world" record accomplishing the feat in 35 days, 21 hours, 35 minutes, 4-5 second.

The interest in Mr. Mears' trip was intense and inquiries were frequent as to his progress. In its editorial welcome to the "World Tripper" the *Evening Sun* says, "How real the public interest was that infallible barometer of gratifying curiosity, our telephone, fully demonstrated."

These "infallible barometers" are in several other places besides the *Evening Sun* office—to the aggregate of nearly eight million in the country.

OUR closing date is the 25th of each month for the next issue.

It would be of great assistance, however, if contributors would send in their material as soon as they have it ready.

Are you a contributor?

You have only to write the Editor, 15 Dey St., New York.

We want to hear PERSONALLY from every one of our fellow employees.

What's on your mind?

Digitized by Google

Social Uses of the Telephone

By Cromwell Childe

"Yes, You Are Right. It's Cheap. I See Now."

AT a dinner table in a hospitable, handsome house in one of the most attractive of the suburbs of New York—the kind of a home that the unattached bachelor envies and makes up his mind he must have some day—sat a little family party. Uncle John had come for an evening's visit. It should have been an altogether delightful occasion, but there was a certain cloud. Something, it was quite evident, was disturbing the serenity of the pretty young matron; not even the appearance at dessert of the son and heir with his nurse and Uncle John's brief romp with him could chase away her vexed air. The trouble finally came out, with a rush.

"I'm going to give up my telephone. I simply cannot afford it."

Through his eye glasses Uncle John looked inquiringly but discretion was always the better part of valor with his niece. It was best to let her take her own time in telling.

"Sixteen dollars!" she said finally, looking sorrowingly at him. "Sixteen dollars for only one month! Just think of it. I've been going over my bills to-day, and it's more than I can stand. You know, Uncle John, our income is a little less than five thousand. A telephone, I thought, wouldn't cost much. Four dollars and a half was what my contract reads. And here it's nearly four times that. Gracious me!"

Her Uncle sipped his coffee meditatively. Then, in a quiet, sympathetic way, he began:

"Sixteen dollars a month is certainly a lot of money, and it doesn't seem worth while, does it? But, let me see; when we used to install new machinery in that silk plant of mine years ago the thing we had to figure every time was not so much what a new machine cost as to whether we could save money by it. Now, isn't it the same in housekeeping and social life? All of us want to get the most out of our dollars.

"Let me look at that sixteen dollar bill of yours, my dear, if it's not too much trouble. Yes, here are eleven dollars and a half of extra calls, nearly forty cents a day. Suppose we see if we can trace some of them."

It would have made a famous picture for some artist, that comfortable dining room, with its fine napery, artistic hangings and beautiful furniture, and the graceful young woman bending over the shoulder of the stalwart old man—if anyone had been there to see. Uncle John's pencil ran over one item after another. It stopped at "22,681 Riverside."

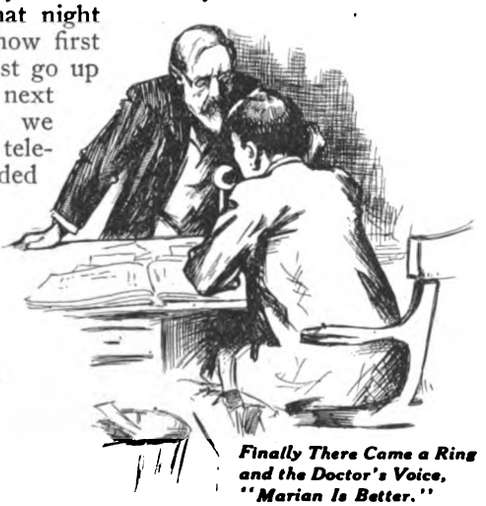
"That was the day, Alice," he said, "that was so cold and stormy and your mother was sick in the apartment on West Eighty-second Street. You sat upstairs and called her up twice during the day. She didn't turn out to be so very sick, and the worry you started in to have was quickly relieved. Suppose you'd given up the telephone. You'd have gone right over to New York to her, wouldn't you? That would have cost you twenty cents in car fare at the least. Probably it would have cost a lot more, for that particular day was so bad, as I happen to remember, that very likely you'd have gone in a taxi to the subway and picked up another in New York—two dollars and five cents at the very least, to say nothing of coming back. With a telephone here the expense was just twenty cents.

"You might not, on the eighteenth, have gone out to Orange to see Cousin Jessie, if you hadn't been able to telephone her and gotten word about the Murrays inside of ten minutes, but I think you would, for there was no time to write and you never could have asked the questions you wanted in a telegram. Mrs. Murray would have been horribly offended if you hadn't met her at the train that afternoon with a full understanding of the situation as regards Susie. Probably she'd never have forgiven any of us. Yes, I know she's unreasonable, but that's the way with a good many of the people we come to call friends. We must take our friends as we find them. But that's not the point. What actually happened was this. You not only saved your own time, but by getting Cousin Jessie on the wire you saved, at a cost of twenty-five cents, at least a dollar. Score another one for the telephone, my dear.

"This Greeley number, Alice, looks very suspicious to me. Yes, it's one of those dreams of fair women, a modern department store, in which no young person in skirts can possibly resist temptation once she gets inside. You called up that number four separate days. Suppose you had gone over? Luncheons, taxicabs, things you wouldn't have bought if you hadn't actually seen them there, things you really didn't want—I can't figure up what they would have come to, but the cost here is altogether forty cents."

Alice had to laugh in spite of her determined look.

"Because of modesty, Alice, I am making no reference, you will notice, to two, three, five calls for an old Uncle in his office downtown in Wall Street as to certain matters of business. Unless I am far wrong, in at least two of those cases a young lady would have had to have traveled over to see that self-same Uncle. That would have cost quite as much as the telephoning, I guess a good deal more in the long run. This New Rochelle call saved a trip of somebody up there, for we never could have explained to Ed. and Nellie by letter. Don't you remember how we talked it over that night right here, and how first you said you must go up in the first train next morning? Then we thought of the telephone and decided that would do it. It did—inside of ten minutes."



Finally There Came a Ring and the Doctor's Voice, "Marian Is Better."

Young Mrs. Alice snatched the bill from her Uncle's hands. "Stop it, you tiresome old gentleman!" she cried. "Yes, you are right. It's.

Digitized by Google

cheap. I see now. I must have saved at least twenty-five or thirty dollars last month alone by my telephone."

* * * * * * *

Twenty-five years ago John Graydon recalls a terrible week in his life. He was a boy of twelve then, and his mother was taken very ill. The doctor never lost hope, but it was an anxious time. What made it worse, as John Graydon looks back through the years and remembers it all vividly, was that just then his father's business needed the closest attention.

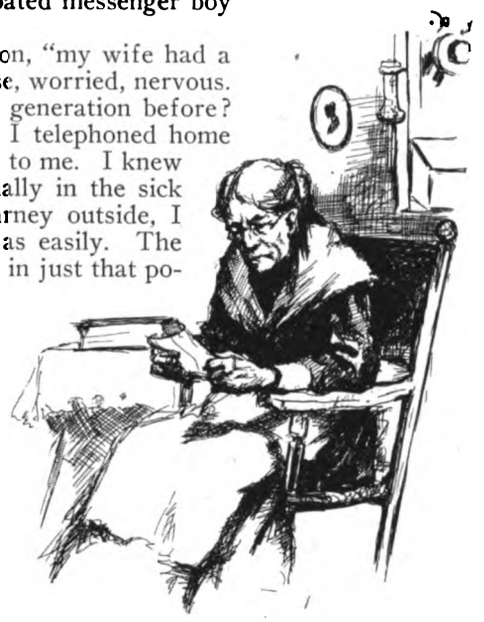
"Every day that week he had to leave the house before eight. There was no choice—his business future hung in the balance. A single false step would have brought complete disaster. He was like a pilot in a rocky channel. I do not remember a single day that week that he reached home before seven o'clock. All those eleven hours he was tortured with forebodings, fears—regarding his business and regarding his wife. The office door never opened but he looked to see if there was a blue-coated messenger boy with a summons to come home.

"Last spring," went on John Graydon, "my wife had a sudden illness. I was anxious, of course, worried, nervous. But did I have the agony of father a generation before? Not for a moment. Every half hour I telephoned home from my office, or the nurse telephoned to me. I knew every detail as well as if I were actually in the sick room. If I had to make a little journey outside, I would telephone from anywhere just as easily. The blessed relief! If you have never been in just that position, had just that very experience, you cannot imagine.

"Father came in to see me one noon, on the worst day of all. For an hour it looked as if it might be better to drop everything and go over home. I was waiting for the arrival of the doctor. Finally, there came a ring, and his voice. Marian was better. In my relief I fell back in my chair. The strain had lifted, and it was almost too much for me.

" 'Father,' I said, and I reached out for his hand. 'Tell me, how did you ever stand it years ago without a single word from morning until night?"

" 'I do not know, boy,' he said. 'I had to, that was all.' I think the old gentleman cried then. I myself was very near it."



Until Tonight He Had Never Failed to Send Her a Remembrance. What Was to be Done? The Telephone!

* * * * * *

There is something I like in the phrase "network of invisible wires." The unimaginative man does not think much about it, naturally. It is a commonplace to him. The telephone is no more to-day to such a man than his stenographers, his day book, his big ledgers and his active corps of salesmen. But these wires that are unending in their combinations and are accepted as a fact of the time, nothing remarkable, only to be growled at when a desired connection cannot be had instantly, are far more than mere conveniences to business. They are evolving a new American life, a comfort, help and real service. Now and again one hears of family ties growing less and less strong. The contrary is the fact. The wires one does not see, whose use can be engaged for a few cents, are binding family together, closer than ever before.

* * * * * *

In one great American city there is a big corporation semi-chief, a man who at forty years of age is entrusted with the carrying out of big executive policies. He is a busy man, even in this world of busy men. Conference after conference take up his days, secretaries wait his bidding, the weight almost of Atlas is upon his shoulders.

Up in a little New England village, in a quaint little cottage, lives this man's old mother. She is not so very old, but for a generation she has been out of the world. Her husband died years ago, when the son was just a callow youth, first making his way. She is proud of her boy and his title as "Vice-president and General Manager," but no other place than this little cottage would be home to her.

After a busy day the son went to his home the other night. "Home" to him is a suite in an apartment hotel. He stopped at his club and dined. Then, in his rooms he took up a magazine. He thought of going out, but made up his mind to rest.

It was a perplexing year. The great company was going ahead by bounds. It took every shred of this man's brain, every particle of his nervous energy to solve the daily problems that reached his desk. For weeks he had thought of nothing else than these.

A little clock on the mantle chimed —eight times. Of a sudden, for no especial reason, but definitely, forcibly, a thought sprang into this man's mind. "Down town" would have been amazed had it seen the way this cool, composed, iron-willed executive sprang from his chair. It was, he realized, his mother's birthday! Through all the years until to-night he had never failed to send her a remembrance. What was to be done?

The telephone! In a moment he had crossed the room, and was asking for "Long Distance." Across half a dozen states the wires got to work at his bidding. No great commercial deal hung on the connection that called into play the fingers, voices and brains of many night workers. The fate of empires, principles of statecraft, mere bright dollars, were not concerned, only the plea of a boy many miles away to talk with a lonely old mother whose heart yearned for him, who treasured his letters as if they were treaties of world-wide import, and kept them alongside of her Bible.

It was not long before the cottage in the little Massachusetts village and the big apartment hotel hundreds of miles away were bound together, and the heart hungry man heard the voice of his mother's housekeeper. When, a moment later, he heard his mother's feeble voice, it was almost as if he had her in his arms.

"This is Tom, mother. Your Tom."

There was a quaver, a worried voice. He could see her standing there in the little, dimly lighted hallway.

"Tom? Tom? My boy? Where are you? Is anything the matter?"

His sturdy voice reassured her.

"Nothing, mother, nothing. Only birthday wishes. It's your birthday, you know. Only, love from Tom. A little remembrance is coming as fast as trains can bring it. But to-night I wanted to tell you how much Tom loved you."

The men of the great corporation would have been amazed. Here, across hundreds of miles of wire, their hero, the man they all leaned on and who planned their every move, was a boy again at his mother's knee. It would have seemed incredible. Only the telephone had made it possible through the limitations of distance, over space that it would have taken the fastest train twenty hours or more to travel.

Digitized by Google

"And did you call me up from 'way off to-night just to tell me that Tom?" quavered the old voice.

"Just for that, mother. Just a birthday wish, and God bless you!"

Over the telephone came half a sob, half a joyous voice in the old tone he remembered so well in babyhood," God bless you, my boy." And then for minutes, with voices choked by emotion, no word was said only "mother, mother" and "Tom, oh, Tom!"

Every Morning When Juliet is Away a Gay Voice Comes Floating Home Over the Wire

* * * * * *

There is the story of Juliet. Though it is not conceded in so many words and the facts would be categorically denied, or at least a statement evaded if questions were asked, Juliet, now nineteen, is the one reason of her mother keeping the prettiest home imaginable and her father, who already has very fair means, working like a galley slave so as to have plenty of funds ahead for Juliet's pleasure. It has been worth the while, for this only daughter has proved a most distinct success in the social world.

Naturally, a popular girl cannot "blush unseen." It must be confessed that Juliet is not a "home body." Two years at a noted out-of-town finishing school gave her a wide acquaintance with girls everywhere. Nearly every mail brings her invitations for teas, dances, automobile trips, and to serve at weddings in some bewitching gowns of pinks, yellows and greens. Except when she is entertaining at home, Juliet is always on the go out of town. Her family would feel much of the time that she was lost were it not for the telephone.

As it is, every morning when Juliet is away, no matter how far it may be, at around eight o'clock (before papa gets away to business) a gay voice comes floating over the wire, "Morning, Momsey; morning, Dad. Yes, I'm in bed, and awfully sleepy. But I had the maid wake me up and get the connection. We had a perfectly scrumptious time last night. Yes, dear, I'm just as well as I can be." And then follows a little chat, in which news and gossip are exchanged.

Perhaps mother goes away with her daughter on one of these gay trips out of town, leaving father, as fathers are apt to be left, in the city providing the sinews of war. (Father does not mind it a particle, it should be said. He is not the "tired business man" of tradition; he is having a very good time in his way; and he is proud of the honor of financing Juliet and her mother and giving them just what they want.) Is the family at these times far apart? Not a bit of it. Right into father's office come the voices of wife and daughter, and he hears at first hand all their triumphs and pleasures and plans. No other type of man is so much benefitted personally by these invisible wires. There is but one moment where they, as yet, do not avail. Some time some young man will ask Juliet a fateful question, and if he is the right man she will send him "to papa." Thus far every lover goes direct, even if he has to cross half the Continent, to get his permission. But in the years to come the telephone may change even all this.

* * * * * *

Were the world made up solely of men the telephone, even with full regard to its commercial use, would be of comparatively little moment. Women in social life have been alive to its possibilities and convenience from the very first days it was perfected. Sensible as she acknowledges it was, the modern housekeeper can no longer follow the custom of her grandmother and go out shopping with a basket. She has too many other things to do. Why should she use her time in traveling in cars, taxicabs or her private motor, when in a moment she can get at a store the very clerk she would talk to face to face, and tell him just what she wants to buy?

The modern retail business man realizes this, and has his telephone equipment wonderfully complete. Over the telephone each customer takes less time. To the shopper herself the saving of moments, even hours, is incalculable.

* * * * * *

But it is in the minutiæ of social life and in personal contact between friends and acquaintances that the telephone has made the greatest changes. Gradually it is abolishing note and letter writing, or the larger proportion of these documents. What need is there of them? Why waste pen, ink and paper and use up valuable, crowded moments, when with little exertion anyone can get acquaintance or intimate voice to voice at any hour? Milady very frequently these days, instead of writing formal notes of invitation to dinner, gets her would-be guests on the wire. For suddenly assembled companies the advantage is great; there is no time or occasion, in fact, when "calling up" is not the easiest, simplest, most agreeable thing to do.

The diarists are gone, the great ladies of the day no longer write journals. In the same way the letter writers are going, and the compilers of the brief, delightful little notes of the past generation—and even not so long ago as that. People used to take pride in being experts in these things. There was no better way. But as in many other particulars all this has changed. The telephone has brought with it a more practicable, agreeable order. Nowhere is this so pronounced as in the personal relations between people. With the better medium, the actual transmission of the voice between friends, one does not need to be sorry that the note and letter days are passing.

* * * * * *

The invisible wires are no respecters of grade, position in society or financial means. They are as good and available for one as for another. It is not long ago that a policeman was hurried to a hospital. It proved a surgical case, and, admitted to the hospital on Saturday, he was operated on on Monday. Now Roundsman Reilly had an invalid wife. His illness was the greatest of shocks to her, the more because she would not be able to go to the hospital. Her sons, therefore, put their heads together. The family had never had a telephone. It had seemed unnecessary. Now, however, the boys thought it would be the opportune moment. By explaining the situation to the Telephone Company they got instantaneous action, and early Monday afternoon the line was in working order. What was the invalid wife's surprise and comfort a little later to hear her Dennis' voice, weak and faint, but still the same:

"I'm just over the operation, dearie. I'm all right and feeling fine."

The Invalid Wife's Surprise and Comfort to Hear Her Dennis' Voice.

Digitized by Google

Getting More Out of the Telephone

A WHOLESALE produce merchant in New Haven, who for one reason is successful because he keeps in close touch with the market, telephoned 1,500 miles to Minneapolis for a carload of butter. Probably another reason for his success is that he is a good advertiser, for he immediately gave the facts to the newspapers and thereby obtained a large amount of free advertising, which undoubtedly assisted him in disposing of his purchase.

A firm of real estate and insurance agents in Geneva, N. Y., closed a $25,000 deal with a client in New York City over the telephone.

As everyone knows, all the negotiations with Colonel DuPont in Wilmington, Del., for the purchase of the Equitable site in New York, involving approximately $30,000,000, were conducted over the telephone, and the principals did not meet until all the papers were ready for their signatures.

A banker in Wall Street, while sitting in his office chatting with a friend, received a telephone call, answered it, and then made another. Turning to his friend, he said: "I have just had an offer of a hundred thousand dollars worth of bonds from a banker in Cleveland and sold them to a client in Atlanta at a handsome profit." His friend asked him when, and he replied: "Just now, while you were sitting there. Those were the two telephone conversations I have just had."

It is not at all unusual, but on the contrary, quite an ordinary occurrence for a man to find himself unexpectedly out of tobacco in the evening, and call up the drug store requesting them to send him up a can right away. And the druggist does it.

Comparative Figures

These illustrations are only typical of literally hundreds of thousands like them which occur every day, for statistics show that there are about 27,000,000 telephone conversations carried on daily, or nearly 9,000,000,000 a year, over the seven and one-half million telephones in the Bell system, and a large percentage of them, of course, are business conversations. The Bell telephone toll lines of the United States now reach 70,000 places. The extent of the system is best realized by comparison with less than 65,000 post offices, 60,000 railroad stations, and regular telegraph offices at about 25,000 places. As telegrams may now be sent and received by telephone, this probably constitutes the greatest benefit that has been conferred upon the commercial and social world since the invention of the telephone itself.

Telephone Equipment Varies According to Conditions

No one ever thinks about what kind of telephone equipment he is using, or that of the person to whom he is talking. It is simply a question of telephone service.

The telephone companies do not sell equipment. If it were otherwise, it would be to their interests to induce subscribers to buy as much of it as possible. What the telephone companies sell is service, and therefore their efforts are directed towards inducing subscribers to take only the equipment which will enable them to obtain the service which would be most useful to them, and this varies not only according to the nature of the business, profession or social position of the subscriber, but also even as one subscriber differs from another of the same class.

For example, a druggist whose prescription department is the most important, needs a telephone equipment entirely different from one whose business consists principally of the sale of toilet articles and novelties, and both are affected by the use which the public makes of the telephone in the store.

Grocery stores in large cities vary in their telephonic needs from each other, just as much as they vary from such stores in small cities. And these in turn vary according to the character of their business.

This same principle applies equally to offices, factories, residences and every other class of telephone subscribers. The only economic way, therefore, by which the greatest efficiency can be obtained from the use of the telephone is by installing the equipment best suited to the specific conditions in each case, regardless of all other subscribers.

It is possible that in the several transactions mentioned at the beginning of this article, there were no two telephone equipments alike. Nor was such necessary. The important thing was to obtain the service desired with the greatest amount of convenience, and no more service could have been obtained, whatever the equipment might have been; there might, however, have been a great increase of convenience in obtaining this service unless the equipment was already of such a character as to afford the greatest amount of flexibility and facility.

Telephone Companies Prescribe Proper Equipment

The telephone companies are always ready to co-operate with subscribers in determining what equipment is best suited to their needs. The value of this was illustrated when a subscriber ordered a direct trunk line to each of the seven departments of his business all of which were located on the same floor of a large building. What he wanted was to insure each department always being free to receive outside calls intended for it, and to be able to call whenever necessary without regard to the other departments. It was soon pointed out to him, however, that a switchboard with three trunk lines and seven extension stations would cost him much less and give more flexibility to the service, besides affording interior communication.

Increasing Business by PROPER Use of Telephone

Often two trunk lines are ordered when one trunk line with an extension station is all that is necessary; sometimes, however, the latter is insisted upon by a subscriber when more extensive equipment would meet his needs more fully. This was the case of a butcher in Westfield, N. J. Finally, however, he was induced to install a private branch exchange switchboard, upon the telephone company showing him its records of how many times he was called daily by his customers and found "busy." At first he objected because, he said, his cashier would be interrupted too much by answering the calls, but he decided to try the experiment of employing a switchboard attendant and reorganizing his clerical and selling force to accommodate his business on the basis of adequate telephone equipment and service. He then wisely placed an advertisement in the local newspaper, soliciting telephone orders. Just six weeks later, he wrote, saying: "As the result of my advertisement of recent date, I find that my business has increased to such an extent that it has been necessary to have another trunk line added to the switchboard, making three lines. I am well pleased with my system and will no doubt be obliged to add additional lines in the near future."

Digitized by Google

Solving a Fish-Day Problem

A fish merchant in Englewood, N. J., asked for advice on the telephone problem that confronted him. He had two telephones and three clerks, which were quite adequate to handle his business, with the exception of each Friday, on which day the number of customers who ordered fish in person and by telephone caused a great deal of delay in waiting upon them and consequent dissatisfaction on their part. It was suggested to him that on Thursday afternoons when his clerks were not very busy, he should have them call up all his regular customers by telephone and solicit their orders for the following day. This solved the difficulty for him, as well as pleased his customers. Thus the value of the telephone service to this merchant was increased without any change whatever in his equipment; *he was simply getting more out of it.*

A Fruit Dealer's Experience

This brings to mind the incident of the fruit vendor who had a small lean-to on the sidewalk against a building. An industrious canvasser for the telephone company induced this son of Italy to install a telephone. A week or so later in passing, the canvasser inquired how he liked it. The fruit dealer became very much excited and ordered the telephone taken out at once, saying that his bell had not rung since the instrument was put in. The canvasser, however, calmly inquired the prices of various fruits, and then asked permission to use the telephone. Selecting at random the names of ten or fifteen residents in the neighborhood, the salesman called them up in turn and took a number of orders, each of which he wrote down on a separate fruit bag. With this evidence, he again approached the fruiterer and asked if he had a boy with a wheelbarrow. The merchant said "no." The salesman told him that he had orders for a good many dollars worth of fruits if there was only some way to deliver them and collect the money. When it was all made clear to him, Mr. Italian hired a boy with a pushcart, and delivered the orders. Some time later when the salesman passed again, the dealer stated that his telephone trade had increased his business to such an extent that he was going to move into a store!

An Important Factor in Business

These small merchants, in their way, are only doing what many of the largest stores began to do long ago, and the largest users of telephone service are always the most ready to accept the suggestions of the telephone companies for the installation of facilities which would expand the usefulness of the telephone in every possible way.

Very often, when applying for service, subscribers insist upon ordering what will be most useless, if anything can be useless in the way of telephone service, just because they are unwilling to rearrange the conduct of their business, professional or household affairs so as to make the telephone a really important factor, instead of a mere convenience, which, of course, is by no means negligible.

Ordering Railroad Tickets by Telephone

Such a re-arrangement of its entire passenger and ticket office business throughout the city of New York was made by the New York Central & Hudson River Railroad Co. when it installed a large private branch exchange at its principal local office at 1216 Broadway, where all telephone orders from any part of the city are received. The tickets that are ordered are delivered from the office located nearest to the passenger, by messenger if desired. By centralizing the business in this way, it is handled in a systematic and more orderly manner, both to the great advantage of the railroad company and the public.

Park & Tilford's Telephone Equipment

Another instance is that of Park & Tilford, whose reputation for business acumen and progressiveness is known throughout the country. In one of their advertisements they said: "We gave special attention to the telephone equipment of our new Fifth Avenue store. To meet our requirements, we installed a three-position telephone switchboard connected by thirty lines to the central office of the telephone company. To this switchboard are connected forty-five extensions located at various points throughout our store and offices. Fifteen tie lines to our seven branch stores and to our stable and warehouse, make this switchboard the centre of our telephone business. In order to facilitate delivery of goods, orders taken over the telephone are transmitted over the private tie lines to the store nearest the customer. The New York Telephone Co. handled this entire installation to our complete satisfaction." Since the advertisement appeared, they have added a number of extension stations and tie lines and increased their message rate contract.

An Up-to-Date Druggist

Out in Bath Beach, Brooklyn, a druggist started a new store to compete with six others that had been established there from five to ten years. He installed a telephone window display and advertised for telephone order business. A large sign stretched across the entire front of his store read: "All telephones lead to Hempel's Pharmacy, 955-956 Bath Beach." A few days later, a physician called him up and gave him orders aggregating more than $15. The physician's name was unfamiliar to the druggist, and upon inquiry it was discovered that the doctor lived in an entirely different section of the city, but in passing the drug store in his automobile, had noticed the sign and remembered the telephone number. He explained to the druggist that he had been induced to telephone to him because he wished to patronize a store that was able to give the prompt service which would naturally go with handling orders received by telephone. Within two weeks, Mr. Hempel stated that his sales increased fifty percent. Customers who had bought their drugs at other stores for years came to him, and now telephone their orders from home. This made it necessary for him to have additional telephone equipment installed to handle his increased sales.

Other Examples

In New Rochelle, the enterprising proprietor of several lunch wagons installed a telephone in each and provided extra help so that he could have his customers telephone for sandwiches and coffee, and send it to them.

A colored man in Montclair, engaged in the business of tending furnaces, house-cleaning, waiting at private dinners, mowing lawns and the like, installed a telephone in his furnished room for the accommodation of his customers, so that it would be more convenient for them to reach him.

A colored washerwoman in Glen Ridge, N. J., installed a telephone in her room for the same purpose.

Wanamaker's Telephone Department

Wanamaker's has installed a day and night telephone order department, and what is more, orders sent to either their New York or Philadelphia store will be transmitted to the other and delivery made to any point without the least inconvenience or trouble on the part of the customer. They have demonstrated that more shopping can be done, and that it can be done more satisfactorily over the telephone in a few minutes, than can be done in person in half a day, and their summer advertisements on Fridays and Saturdays draw attention to this feature of their enormous business, which makes

Digitized by Google

week-end visits both with the family at home or in the country, or with friends elsewhere, more pleasant and agreeable. These week-end visits with the family at home are not referred to as a joke, for in the rush and bustle of present day life, a commuter sees but little of his family during the week, and often his Saturday afternoons are spent in shopping for necessaries that he has not time to purchase on other days. How convenient, then, it is for his wife to order from the stores in the city by telephone and describe what she wants, as only a woman can do it, instead of giving the poor husband a memorandum of what to buy and probably find he has only had time to get some of them and these not the real things, but what he thought "just as good."

Telephone Order Coupons

Strawbridge & Clothier of Philadelphia perfected a very elaborate system by which they accepted coupons printed in their advertisements in the daily newspapers in payment for out of town telephone calls when the goods ordered aggregate a stated amount. The cost of the telephone call is deducted from the amount of the bill, and thus the customers are reimbursed.

This is very much like a system adopted by a wholesale New York jeweler. His catalogs are in the hands of small jewelers throughout the suburban territory and with them he furnishes a book of coupons, so that any telephone orders sent to him for goods will be at his expense. He arranged for messengers to catch the first trains to these suburban points, within fifty miles of New York, whenever it is necessary, in order to deliver anything that may be wanted immediately by customers of the local jewelers.

Selling Fish by Telephone

An old salt on the New Jersey coast says: "After a morning's catch, first to the telephone, then to breakfast." In these words he described how the fish are disposed of. No longer do most of these fishermen rely upon the middleman in New York, but they call up the markets in all the nearby cities and sell where they can get the best prices. Specific cases are given of how a dealer who had no telephone, sold a large quantity of sea bass to a local market for six cents a pound, while one of his competitors obtained twelve cents, merely by calling up a market in New York. Another, one day, lost two dollars a barrel on a large quantity of fish because he did not use the telephone to obtain prices outside.

What the Telephone Means to the Farmer

The Farmers' Exchange of Monmouth County, N. J., illustrates the value of the telephone in rural communities. Last year the United States Weather Bureau sent out a frost warning which was telephoned from the headquarters of this Farmers' Exchange to all its members, thereby enabling them to protect their potato vines. Farmers who did not have telephones, of course did not receive the warning. The result was that every man who had a telephone saved his crop, which amounted to thousands of dollars, while the crops of those who did not have telephones were destroyed.

The farmers' telephone banishes isolation and makes neighbors of families widely separated. Telephone service in calling the family doctor, or veterinarian; in summoning the fire department, the constable, or clergyman; in ordering household supplies and selling farm produce, has wrought a revolution in rural districts. A few years ago farmers would load their produce into wagons and drive it into town, to be sold haphazard. Often a representative of a shipper would lie in wait for them on the road and literally "put one over." Now the farmer, if he is wide awake, is like the New Jersey fisherman referred to and uses his telephone to find the best market.

A farmer in Nebraska read that there was a better market in New York than at home for his product. Quickly computing the cost of transportation, he called up several firms in the metropolis and closed a deal which added to his profit what the middlemen would have made.

"Jim" Thorpe

Jim Thorpe, Indian athlete, was secured by McGraw of the Giants, by long distance telephone, while other baseball clubs were sending their representatives to Carlisle to negotiate.

Arnold Bennett's Views

Arnold Bennett, in his book, "Your United States," says: "What strikes and frightens the backward European almost as much as anything in the United States is the efficiency and fearful universality of the telephone . . . It is the efficiency of the telephone that makes it irresistible to the great people whose passion is to 'get results.'"

The purpose of this paper is to show how to get results.

A Man Who Had Never Used a Telephone

Recently, a city employee was arraigned before the Commissioner of his Department for absence without leave. When asked why he did not telephone, he replied that he did not know how to use one. His sentence was suspension for five days with the advice that he should spend the time in learning this "necessary accomplishment." He would have made an interesting exhibit in a museum of curiosities.

And yet there are thousands of users of the telephone who do not realize the possibilities which lie dormant in its use.

Hotel Telephone Equipment

An up-state hotel thought it was sufficient to have interior telephone service in all of its rooms and two or three Bell telephones in booths on the main floor. One night a prominent New York business man who was stopping there was awakened in the wee sma' hours by his telephone ringing, and when he answered, he was told to come downstairs as there was a call from New York for him. The row he raised at being so inconvenienced resulted in the proprietor signing a contract the next day for a modern and up-to-date Bell telephone equipment throughout the hotel. The trouble was not that there was no long distance service in the hotel, but that its serviceableness was so greatly diminished by the lack of adequate equipment.

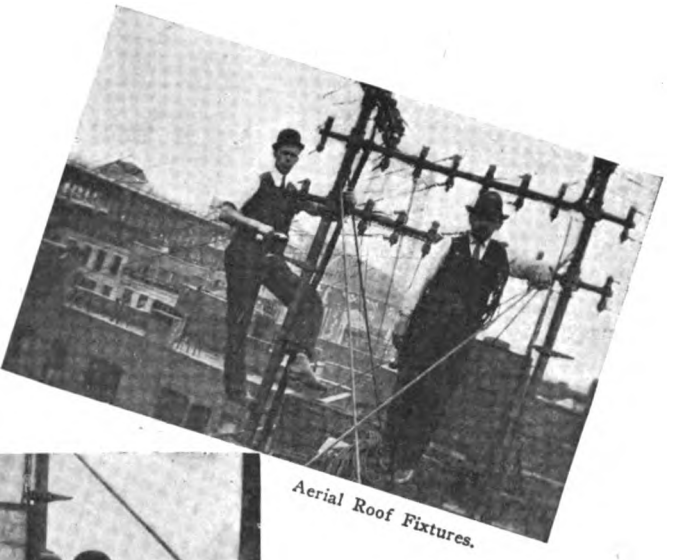
The owners of the Hotel McAlpin in New York City, however, recognized from the first the necessity of telephone facilities at every point in the hotel where it was likely it could be utilized to advantage, and in the planning and designing of the building they also planned the telephone equipment for it. The result is that they have upwards of 1,700 telephone instruments located in bedrooms, halls, pantries, retiring rooms, offices, kitchens and every conceivable place where time can be saved and efficiency increased by its use. This is the largest hotel telephone equipment in the world.

What Telephone Service Is

What is the telephone for? It is merely for transporting the human voice. The voice of each telephone user may be transported to and from points separated as far as 2,400 miles, and the promise is held out that at no distant date it will be possible to talk with San Francisco. It is only necessary for each telephone user to say where he may wish his voice transported and whose voice his ear may wish to hear, for the service is both ways.

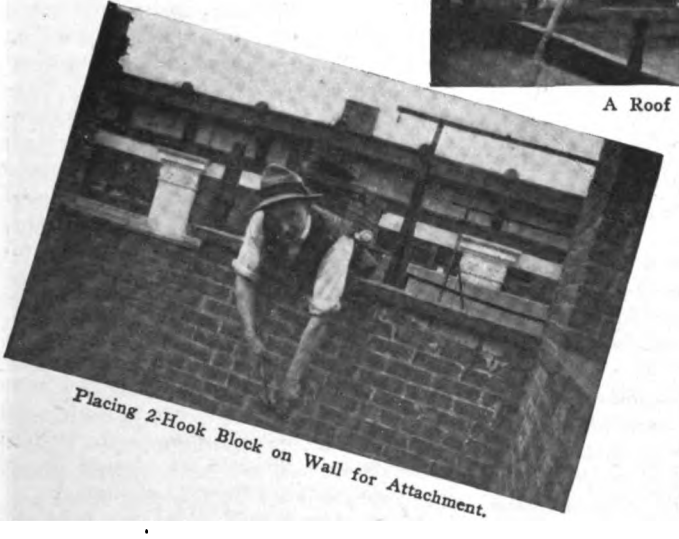
Digitized by Google

Aerial Roof Fixtures.



Aerial Roof Fixtures.

A Roof Terminal Box.



Placing 2-Hook Block on Wall for Attachment.

About to Throw a Line Across the Street from a Roof.

Some Aerial Construction in Manhattan

MANHATTAN is often cited in communities where objection is made to aerial construction, as a place where all telephone lines are underground.

From time to time articles have appeared in *The* TELEPHONE REVIEW describing certain aerial work in this district, but they have not drawn attention to this feature.

Of course, in Manhattan, just as all over the entire territory, and probably no more so than elsewhere, the company is placing all of its plant underground wherever conditions justify.

There is still, however, a considerable amount of aerial construction in Manhattan, although it is almost negligible in comparison with what it was even ten or fifteen years ago.

It is greatly to the advantage of the Company, as well as to the subscribers, when the change can be made, because of the reduction of labor, trouble and interruptions of service, and the facility with which service can be restored.

The accompanying pictures show some of the aerial construction in the Orchard District of Manhattan. It is probably only a matter of a short time when these, too, will disappear and we can all say "Well done, and good-bye!"

STEVEN B. GOODLOE,
Plant Department, Manhattan.

GOLDEN THOUGHTS.—"Keep the telephone of your mind forever transmitting thoughts of Love, Purity and Joy; then when selfishness, lust or hate try to call you up, they will always get the Busy Signal. Afterwards they will forget your number."

Digitized by Google

Mutual Relations and Interests of the Bell System and the Public

A Statement by Theo. N. Vail, President American Telephone and Telegraph Company

THE suit brought by the United States questioning the purchase of certain telephone properties in the northwest, as well as the pending Interstate Commerce Commission telephone investigation, have caused many inquiries. Without taking up anything going to the merits of these proceedings, it has seemed to us proper to state generally what has been our policy and purpose in the conduct of our business.

Serving Public Interests

We have found, or thought that we had, that our interests were best served when the public interests were best served; and we believe that such success as we have had has been because our business has been conducted on these lines.

We believe that our company has an interest as vital as that of the public in the proper administration of the problems of electrical intercommunication. The success and prosperity of our company depend upon a solution of these problems which shall be sound from both the standpoint of the company and the public which it serves.

Following our own best judgment, supplemented by the best obtainable advice, we have endeavored to do what would best serve the public interest; wherever possible our plans have been disclosed to the public in advance, and what has been done in carrying them out has been along ordinary business lines, with the implied, and generally, with the expressed approval, authorization or consent of the municipal and state authorities directly interested. Our effort has been not only to obey the law but to avoid everything which might even have the appearance of an attempt at evasion.

Our business methods and policy, and practically all of the details as to the transaction of our business are matters of common knowledge and are, and for many years have been, well known to the government. We will willingly furnish the government any additional information which is in our possession or under our control, and will cordially co-operate with it in obtaining such further information as it may require. Every possible assistance will be given by us to the courts in their effort to determine whether our policy is or has been inimical to the public interest. We desire that anything wrong be corrected; we will voluntarily rectify any wrong that may be pointed out to us; and, so far as it may be determined that our policy or any act under it is against the public interest, we will promptly conform to such determination.

Physical Telephone Connection

We believe that if each of our exchanges were made an independent unit and if each connecting line were put under a separate control, the effect upon the telephone service of the country would be a condition so intolerable that the public would refuse to submit to it and would immediately require such physical connection and common control of these various units as would amalgamate them into a single system. Physical connection in the case of telephone or telegraph does not mean transfer of messages from one line to the other. It means such a connection as will permit one person to have the actual possession of the particular line of communication from one end of it to the other and this can only be given efficiently by exchange systems and connecting lines under a common control; and that is what the Bell System is.

First Company to Advocate State or Government Control

In this connection, and for general information, we will restate the policy which controlled the building up of the Bell System, and our belief as to what a telephone system should be, and what are its relations to the public.

We believe in and were the first to advocate state or government control and regulation of public utilities; that this control or regulation should be by permanent quasi-judicial bodies, acting after thorough investigation and governed by the equities of each case; and that this control or regulation beyond requiring the greatest efficiency and economy, should not interfere with management or operation. We believe that these bodies, if they are to be permanent, effective and of public benefit, should be thoroughly representative; they should be of such character and should so conduct their investigations and deliberations as to command such respect from both the public and the corporations that both will without question accept their conclusions.

We believe that the public would in this way get all the advantages and avoid all the manifest disadvantages of public ownership.

Fair Rates Essential to Prosperous Companies

We believe that centers of business and population exist for the convenience of the public as a whole and that no such center can prosper without sufficient and efficient means of intercourse with other centers and tributary territories; that such means can only be afforded by prosperous utility and service companies and that fair rates are essential to prosperous companies. We do not believe that any public either desires or can obtain, nor can any service or utility furnish, permanent and efficient service at less than cost, including capital charges. We believe that ultimately the public either directly or indirectly pays the losses involved in the efforts to furnish such service at less than its fair cost, either through the loss of the capital involved, the losses incident to poor service or the necessary increase in charges required to pay for duplication of capital.

We believe that the highest commercial value of the telephone service depends on its completeness—on the extent and comprehensiveness of the facilities for intercommunication, not only between individuals but between centers of population; that no isolated section can be considered independently of any other section or of the whole; that rates must be so adjusted as to make it possible to obtain the maximum development by making it possible for everyone to be connected who will add to the value of the system, thus giving the greatest value to the greatest number; that the interdependence of the telephone service and the value of complete and universal intercommunication justify and require some services partly at the expense of the whole for the benefit of the whole.

We believe that this highest commercial value can only be attained by one system under one common control and that it cannot be given by independent systems unless they are operated under agreements which result in one common control and one common interest, in effect making them a single system.

Revenue Should Be Sufficient to Insure Efficient Service

We believe that rates should be so adjusted as to afford the company sufficient revenue to pay such wages and compensation as will secure the most efficient service; to maintain the very highest and most advanced standards of plant and apparatus, to carry on such scientific and experimental research and inventions as to apparatus and methods as to insure the highest standards, and to carry to reserve and depreciation such amounts as will enable the company at any time to replace old

Digitized by Google

plant and old methods with new plant and new methods as fast as they may be developed and found to be to the advantage of the service. We believe that in addition, such fair charges should be paid upon the investment in plant as will enable the company at any time to obtain money necessary to provide the plant required to meet the continuing demands of the public; and in order that waste and duplication of effort may be avoided and uniformity of purpose and common control be enforced, that there should be a centralized general administration in close communication with and having general authority over the whole on matters common to all or matters of general policy.

We believe that any surplus beyond that necessary to equalize dividends on a fair basis should be used by the company for the benefit of the public and should be inalienable for any other purpose, and should be either invested in revenue-earning plant until necessary to substitute plant which may become inadequate or obsolete, or should be used to make the service cheaper or better.

Competition and Duplication

We believe that under proper governmental control and regulation the profits from promotion or operation allowed to be distributed should not be so large as to warrant or tempt complete duplication of plant and organization, with its duplication of its capital charges and its organization, operating maintenance and depreciation expenses; and we do not believe that utilities giving at fair rates and efficient and sufficiently comprehensive universal service should be subject to limited competition, not giving such service. Competition which ignores the obligation to furnish a complete and comprehensive service is not competition, is not for the benefit of the public in that it does not reach the whole public interested.

If therefore, complete duplication, with its dual exchange connection and dual bills for service, is a prerequisite to complete competition, government control and regulation cannot go hand in hand with competition.

We believe that the record of the Bell System will be accepted by the public as fully in accord with these declarations. Consistent adherence to this policy has given the public of the United States the best, most comprehensive and cheapest telephone service in the world and made the Bell standards the standards of all nations.

Facts and Figures

To remove any possible excuse for misapprehension on account of the many misleading statements which have been circulated as to the alleged unnecessary and overcapitalization and excessive charges of the Bell System, the following statistics are given. Except where stated, the figures are for the Bell System; that is, the American Telephone and Telegraph, and its Associated Companies.

The entire Bell System on June 30, 1913, had outstanding in the hands of the public obligations (i. e., notes, open accounts, bonds, and shares) to the par value of $776,000,000.

The book value of the total tangible assets, which is considerably less than their replacement value, amounted to $960,000,000. Many appraisals of property included in these assets have been made, and most of them under the direction of public authorities. In no case has the value as it stands on the books failed to be sustained, and in most cases it has been very largely exceeded.

The total dividends and interest paid during the year 1912 amounted to only 6.1% on the average of its outstanding obligations, and to less than 5% on the average value of its assets.

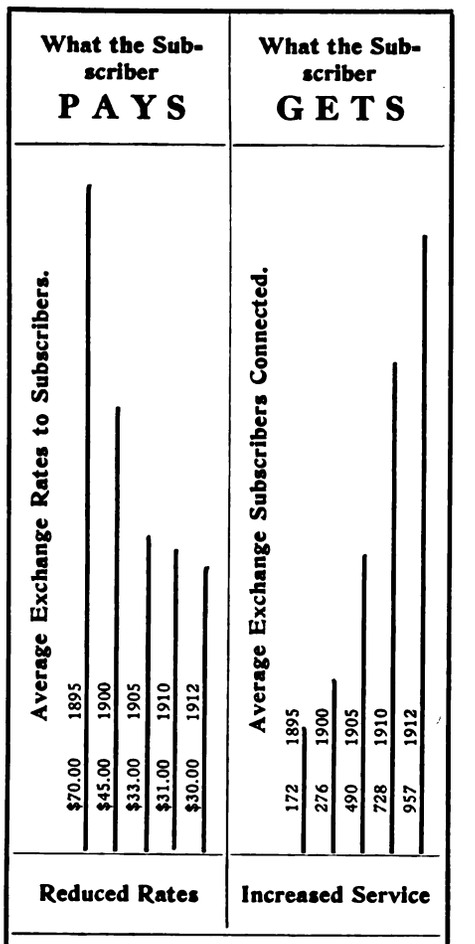
The actual cash which has been paid into the treasury of the American Telephone and Telegraph Company on account of the capital obligations now outstanding amounts to $22,000,000 more than the par of such outstanding obligations.

The Associated Companies collected from the public and paid back in taxes over $10,000,000 during the year 1912.

The steadily increasing necessities of the public not only for additional but for new telephone service can only be met by new construction, involving capital outlay. To meet these demands during the six and one-half years from 1907 to June, 1913, inclusive, the increase in telephone plant was as follows: Toll line wire increased from 1,460,000 miles to 2,242,000 miles; exchange wire increased from 6,000,000 miles to 13,000,000; the number of exchange stations increased from 2,730,000 to 5,200,000; the number of stations of independent companies connected with the Bell System increased from 343,000 to 2,620,000. The number of independent companies connected with the Bell System is about 25,000. The number of employees in the Bell System, not including the employees of connected companies, on December 31, 1912, was 141,000.

During this same period the number of shareholders of the American Telephone and Telegraph Company, not including either the associated or connected companies, increased from 17,000 to about 54,000. About 47,000 shareholders hold less than 100 shares each; 6,500 shareholders hold from 100 to 1,000 shares each; 347 shareholders hold from 1,000 to 5,000 shares each, while there are only 16 shareholders of 5,000 shares or over in their own right. A majority of the shareholders are women.

American Telephone and Telegraph Co.,
THEO. N. VAIL, Pres.



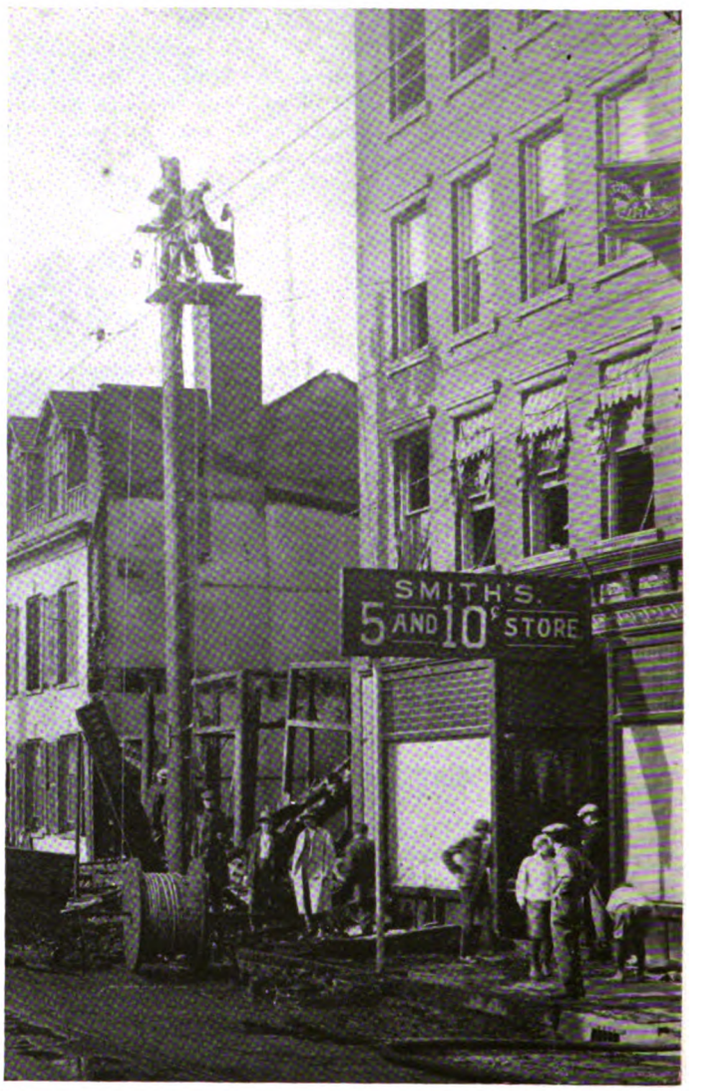
This diagram shows the reduction of the average subscriber's rate for exchange service and the increase in the number of other subscribers that could be reached in each exchange.

Measured Rates Popular in France

AN item in the Paris *Temps*, June 22, 1913, states that in exchange districts in France in which telephone subscribers have been entitled to choose between a local flat rate and a measured rate, it has been found that there are only 3,846 flat rate subscribers as against 104,822 measured rate subscribers. Moreover, says the *Temps*, the number of the former has not increased during the last five years, whereas the number of the latter has almost doubled during the same period. The Minister of Posts and Telegraphs therefore regarded this state of affairs as proof that in these exchanges the local flat rate is no longer popular, and a decree was promulgated effective August 1 allowing only measured rates in the exchanges which previously allowed both rate systems. Present flat rate subscribers may continue temporarily under the old conditions.

Digitized by Google

CATSKILL, N. Y., JULY 10, 1913.—Fire in progress in sales stables of Horton Bros., 447 Main St. Both this and the C. M. Warren fire did great damage to our aerial plant.



CATSKILL, N. Y., JULY 13, 1913.—Ruins of department store of C. M. Warren, 413 Main St., three doors from our office. Note our men at work at top of telephone pole.

INTERRUPTED TELEPHONE SERVICE WAS RESTORED PRACTICALLY WITHOUT SUBSCRIBERS REALIZING ANYTHING HAD HAPPENED TO IT.

Two Disastrous Fires in Catskill

Plant Department Quickly Restores Service

ON the evening of July 10, shortly after 7 o'clock, fire was discovered in Sales Stables of Horton Bros., dealers in horses, wagons, and harness supplies, 447 Main Street, Catskill, N. Y. This firm carried a great many horses and a large quantity of supplies on hand, in addition to over one hundred tons of hay and straw. The fire spread so rapidly that in less than a half hour the entire block was threatened, and before it was under control, the entire Horton establishment was burned to the ground, as well as two of the adjoining structures. Other buildings were damaged.

Two of our cables, one 50 pair, and one 25 pair, were located on the side of the street near the buildings, and, in a short time, were rendered useless. General Foreman at Kingston was summoned by telephone at 8 P. M. and was on his way to Catskill at 8:20 P. M. Preparations were immediately made for the replacing of our damaged cable, and at 11:30 P. M. the fire had cooled enough to permit us to place a new messenger and to substitute a new 75 pair cable to replace those destroyed by the fire. It so happened that the cable department had had splicers working at Catskill during the day, and no time was lost in pressing these men into service, who worked diligently until 6:30 A. M. of the 11th, at which time the work was completed. As the two burned cables carried a good number of our business stations and some residence stations, the fact is remarkable that, while one hundred and fifty stations were out of service on the evening of the tenth, every station was in working order at the opening of business on the eleventh; and, strange to relate, we had but two or three cases where the subscriber was aware that his service had been actually interrupted.

No sooner had the smoke died out from this fire, than the village was awakened by another. On the morning of the 13th, at about 3 o'clock a fire was discovered in the large department store of C. M. Warren, 413 Main Street, three doors from our office. This fire was thought to be the work of burglars as at about the time the fire was discovered, an explosion occurred, and later it was discovered

Digitized by Google

that the safe had been forced and a quantity of burglar's tools were found.

As a result of this fire, the entire building of C. M. Warren was destroyed, and the building of Smith's 5 and 10c store, in which were located the office and press room of the Catskill *Daily Mail,* was entirely gutted. But one building separated our office from the fire and it was by the hardest kind of work on the part of all that the fire was prevented from going beyond the 5 and 10c store.

Immediately upon arrival of Local Plant, advice was telephoned to District Plant Superintendent Greenleaf, at Kingston, who summoned General Foreman Drum, and in less than half an hour, both were on their way, in Company automobiles, to Catskill.

Upon their arrival plans were immediately made for putting our Plant in order.

The damage done us in this case was even greater than at the previous fire, as we lost one 120 pair cable and one 50 pair cable. Having a 50 pair cable on hand, work was immediately started, and before 8:30 A. M. of the 14th, the cable was placed and in working order. Not having a 120 pair cable, District Plant Superintendent Greenleaf passed a call for the emergency bureau at Albany, to give measurements needed. The Company's automobile truck was pressed into service, and the cable arrived at Catskill at 9:30 A. M. arrangement having been made with the Catskill and Greendale Ferry to make a special trip to bring the automobile across the river from Greendale. As a result of this foresight on the part of the Plant Department, a saving of two hours was effected. Upon its receipt, work was at once started, and at 4:30 P. M. the cable was reported in service and all stations working. We had over 250 stations out of service as a result of this fire, and as in the former case, had practically no notice from our subscribers that their service had been interrupted.

I received many kind expressions of sympathy from the public (not knowing how cases of this sort are taken care of), who felt sorry that our plant had been so badly damaged and volunteered to be indulgent with us until we could recover; but on the morning of the 14th we were doing business as though nothing had happened, which to them was somewhat of a revelation.

All the glory belongs to the Plant Department, and during the progress of both fires their allegiance to duty was freely commented upon.

J. J. MALONE,
Local Manager, Hudson, N. Y.

Impressions of an Ossining Operator During the Big Prison Fire at Sing Sing

"NOTHING ever happens in this town" is a remark often heard in a neighboring sleepy Hudson River village, but it does not apply to Ossining wherein is located the big State Prison, Sing Sing, of countrywide fame. Most of us operators have relatives and friends occupying responsible official positions there, and naturally the big fire last month had a dramatic interest for us on that account and also because we never in our lives had to answer so many calls in such a short time.

When the Manager was getting information about how we handled the traffic, he seemed very much impressed that we did not get a complaint and remarked, "My! that would make a good story for *The* TELEPHONE REVIEW if someone could write their impressions of how they felt at the time." We all had read with a feeling of admiration the heroism shown by operators in different parts of the country when bursting dams or tornadoes wrought havoc in their particular locations, and I have often wondered what peculiar sensations these dangers produced in the hearts and minds of the operators concerned. The thrills attending these experiences must leave impressions which are not easily forgotten.

I have seen the effect of a threatened danger of a different sort than those mentioned above, which, I think created a feeling of dread second only to those derived from flood or storm disaster. Its influence on the public was communicated to the operators, who became aware of the public's apprehension by the sudden increase in the number of calls made by subscribers to find out the cause of the prolonged alarm.

The inmates of Sing Sing Prison had been in a state of mutiny for some time prior to July 22, when, at 3:45 P. M., the Ossining fire-whistle, accompanied by the prison fire whistle, began to blow, and continued incessantly for twenty minutes. This long blast immediately created a feeling of fear in the minds of telephone subscribers, who had not forgotten the disturbances which had been taking place within the prison. The operators were kept busy answering inquiries, but they could not help but associate this unusual alarm with a possible jail delivery.

Someone told us there was a terrible fire in the prison and that the convicts were in horror at sight of the flames and smoke, although they behaved very well being locked in their cells.

There was a general feeling of relief when we made it known that the excitement had been caused by a fire in the prison shops, and that the convicts were not only safe, but under proper control.

Both of the threatened dangers being passed, it was easy to perceive that the operators had been working under a strain. Whether this was caused by the impending dangers, or by extra loads which they had been compelled to handle, I can only guess. In my own case probably each contributed to some extent.

Chief operator tells me that on the day of the fire the total business handled between 3 and 6 P. M. was 96 per cent. greater than that normally handled, and I have no doubt that in the busiest hours between 3 and 6 P. M. the business handled was at least 200 per cent. greater than the corresponding normal hours.

The fire burned for four days and the newspapers were full of reports of all sorts of things which added to the excitement of our subscribers.

Because the militia were prepared to quell the Sing Sing Prison mutineers, if it became necessary, there was probably less to fear from this source of danger than there is from flood or tornado, but the incident was not devoid of anxiety especially as we could not forget the folks at home while doing our best to serve the Company and the Public.

"ANNIE THERESA,"
Ossining Operator.

The All-Conquering Smile

According to the surgeons of Johns Hopkins the persons who insist on going through life with a frozen face hurt not only the spectators but do themselves grievous injury. Many cases of internal complaints, including the ever-present appendicitis, can be traced to worry and general grouchiness, they aver.

"Loosen the muscles of your face into a grin," they recommend, "and you'll never even scrape a speaking acquaintance with a high priced surgeon."

The cult of optimism and the urge of the booster are abroad in the land. They'd make it, if they could, one vast substantial smile, like Mrs. Fezziwig. Even the telephone companies pray for "the voice with the smile," while a Western railroad recently ordered its employes to collect a stock of funny stories and acquire the smile that won't come off. There may be a great deal more than nonsense in the contention of the medical men that laughter lubricates the human works and keeps them running as smoothly as it does the wheels of business. At any rate, it's good doctrine to preach for the benefit of humanity at large. Nobody loves a grouch.—N. Y. *Tribune* (Editorial).

Digitized by Google

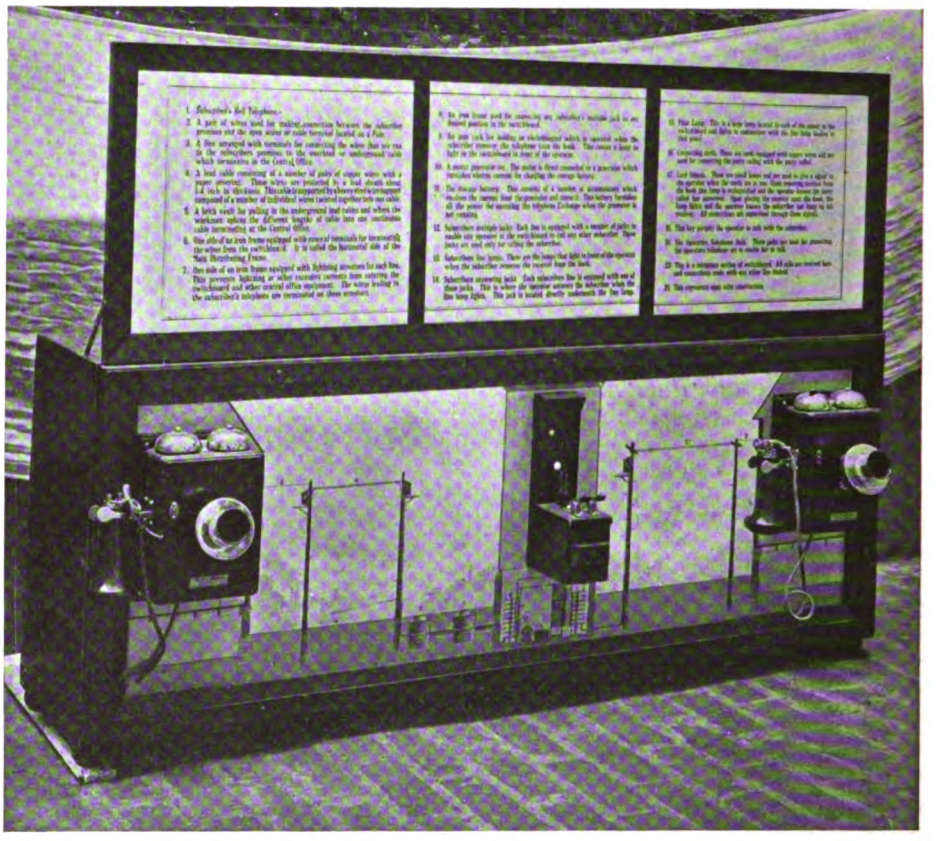
A Traveling Model of an Ordinary Ringing Circuit

ON May 1 of this year the device shown in the accompanying picture started its travels in the Western Division to show the people of different Local Office Districts in an easily understood way the equipment necessary to connect two telephone subscribers.

It has visited twelve Local Offices, offering itself in each case as a silent demonstration, the various pieces of apparatus being numbered and the frame at the top containing the explanatory notes. It was made in the Plant Department Shops in the Western Division.

People in passing by the window in which this device was on display invariably paused to look and comment upon the ingenuity and thoughtfulness of our Company in presenting such an understandable picture of telephone construction work.

At County Fairs it was an endless source of questioning and education to the people who paused to glance it over.



TRAVELING WINDOW DISPLAY MADE IN WESTERN DIVISION PLANT SHOP, SHOWING WHAT IS INVOLVED IN MAKING A TELEPHONE CALL.

Pioneers' Convention

THE 1913 Convention of The Telephone Pioneers of America will be held in Chicago October 16 and 17. The headquarters will be the Congress Hotel, where the meetings will also be held.

The railroads have made a special rate, including sleepers and meals, for the round trip from New York for parties of ten. Similar rates can be obtained from other eastern cities upon application. The Corresponding Secretary should be notified immediately by all members who expect to attend the convention, for which purpose a special addressed postal card has been sent to them.

A large number of members have indicated their intention of attending from the East, many of the men to be accompanied by their wives and other members of their families. New members have been joining at the rate of twenty or more a month for some time past.

The convention promises to be full of interest, and it is understood that the Chicago people are making an effort to surpass the success of the convention in New York City last year. Speaking for New York, we think that Chicago has its work cut out for it, if it hopes to do this, but we are sure a "grand time will be had" by all who attend.

Women are eligible to membership on exactly the same terms as men.

It is important that all who wish to become members of "parties of ten" should communicate with the Secretary, 15 Dey Street, New York City.

A person to be eligible for membership in this association must have been engaged in the promotion of, or employed in the telephone business or its associated interests (excepting the Western Union Company, which has an association of its own), 21 years prior to the date of his or her application, and at any time thereafter continuously in said service for the period of five years. If in the service prior to 1891, then continuous service is not essential.

The Executive Committee is empowered to enroll any person who in its opinion shall have rendered service beneficial to the telephone interests prior to the year 1891.

Applicants for membership should apply by letter to the Secretary, 15 Dey Street, New York, giving the date as near as possible at which they first became connected or associated with the telephone industry as previously stated, and such other details connected with employment as possible.

The applicant's letter of application should be accompanied by five dollars covering first year's initiation fees and dues, and a recent photograph. The application must be endorsed by two members of the Telephone Pioneers' association.

These applications are considered by the Membership Committee and recommended to the Executive Committee for approval and enrollment.

The dues after the first year are two dollars per annum. The membership now numbers over 1,100 members.

Upon the enrollment each applicant is furnished with the proceedings of the 1912 convention and an engraved certificate of membership signed by the President and the Secretary of the association.

Digitized by Google

Versatility of Our Salesmen

DURING a recent regrading campaign one of our representatives had occasion to call upon a subscriber, whom he found busily engaged in hoeing a garden. He explained the object of his call but made no impression on the subscriber, who stated that he was satisfied with his contract, having had it for a number of years, and did not purpose to make any change.

The salesman quickly switched the conversation to the subject of gardening. It happened that he had a general knowledge of horticulture and, calling attention to the different plants, he asked questions about them, made some suggestions, and finally asked if he could assist in the hoeing. The subscriber handed him a hoe, and the two set to work. After a short period our representative remarked that he had another engagement, and regretted that he had to leave such pleasant work. He was thanked for his assistance and asked to call again.

Before leaving, however, he again brought up the subject of telephone service, and this time the subscriber was in such a receptive frame of mind that he gladly accepted the proposition submitted and signed a new contract.

The same salesman interviewed an elderly lady on a similar mission. She was very firmly set in her views and refused to consider any change in the contract which she had had for so many years. It happened that during the conversation a sister of the subscriber was playing a Pianola. Our representative remarked that he formerly was a demonstrator for the Aeolian Company and courteously volunteered to show his knowledge of the instrument. The subscriber quickly assented, and he played several tunes on the Pianola. This made such an impression that before the interview ended, the subscriber stated that she had changed her mind and was willing to sign a new contract.

The moral naturally follows that if you find a subscriber with a hobby, play to it, and your object will be more easily accomplished.

These two instances not only demonstrate the versatility of our representatives, but also their readiness and ability to handle satisfactorily any reasonable situation that may arise in the course of their day's work.

J. F. O'HEA,
District Commercial Manager,
Williamsburg.

Dictating Music by Telephone

WE are very glad to print the following letter received from Mr. Henry L. Tyler, Editor of *Ambition*, both because it contains a very nice compliment which we appreciate highly, and also tells how the long distance telephone came to his aid in a time of urgent need. We reproduce Mr. Tyler's letter in facsimile.

EDITORIAL DEPARTMENT
AmBition
HARRY L. TYLER, Editor
CORNING, N. Y.

August 20
1913

My dear Mr. Newman:

I enjoy The Telephone Review every month, for many reasons.

Whether or not the event will be of any interest to your readers, I believe you personally will be interested in the following:

When it was decided to print the enclosed Festival Anthem in AMBITION we had to have the electro within a few hours. The magazine is printed in Scranton, and Philadelphia is the nearest point from which a music electro can be obtained. There was not sufficient time to permit a trip to Philadelphia.

At my Scranton office I leased a Scranton-Philadelphia toll circuit for 30 minutes for $6. Within the half hour every note and every syllable of the manuscript in Scranton had been read into the transmitter and a musician at the Philadelphia receiver had correctly written down the composition as you see it. The electro reached Scranton in due time.

The following will illustrate the wording in dictating the music: Soprano; treble clef; B-flat; common time; A half; B and C slurred eighths; D and E slurred eighths; 2d bar: F high quarter; C, A, and F quarters down; etc. All the parts were dictated this way.

Cordially yours,
Harry L. Tyler

Digitized by Google

The Mosquito, Its Relation to Disease and Necessity for Its Extermination

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

THE extermination of the mosquito is called for not only because it is a source of annoyance to those who live in districts infested with this insect, but rather because it transmits disease. In order that the public may aid in carrying out this important sanitary measure it is necessary that we should know something of the habits of the mosquito and the manner in which it lives and breeds.

During the last century it was suggested that insects might in some way act as a medium of infection, although but little was done in the investigation of this subject until about thirty years ago when Dr. Laveran, a French army surgeon on duty in Algeria, discovered in the blood of malarial cases under his care a germ or organism which he believed to be the cause of this disease. He announced the discovery to the Paris Academy of Medicine, and his statement was afterwards fully confirmed by other investigators. Then came the question as to the means by which these organisms are introduced into the human body. This led to extended research and experimental work and resulted in securing conclusive proof that malaria is transmitted by a variety of mosquito known as the "anopheles," and that so far as we know at the present time there is no other way by which this disease can be communicated.

Not long afterward further evidence was presented as to the danger of the mosquito as a medium of infection. This occurred during the occupation of Cuba by the United States when a commission, composed of medical officers of the United States Army, was appointed by the President and directed to proceed to Cuba and, if possible, identify the germ of yellow fever and the means by which it is transmitted. While the former has not yet been discovered, the commission was able to present indisputable evidence that this disease is also transmitted by the mosquito and, as in the case of malaria, there is at present no other known means of infection. The variety of the mosquito which transmits yellow fever is called the "stegomyia."

Thus it has been proven that two diseases which in the past have caused great suffering and loss of life throughout the world are transmitted only by the mosquito. More recently it has been found that other diseases are also conveyed from one person to another in this way.

Malaria is very generally distributed throughout the world, while yellow fever occurs only in certain sections, such as South America, West Indies and the southern part of the United States, depending of course on the presence of the "anopheles" and the "stegomyia."

These important discoveries have been followed by great activity in the way of mosquito extermination in different parts of the globe, the earliest and most effective work being done in Italy, for this country had long suffered from malaria to such an extent that even the value of her army had become seriously impaired. The great flats or swamps in the vicinity of Rome, known as the Campagna, were found to be notorious breeding places for the mosquito, particularly the "anopheles," and malaria under the name of "Roman fever" has in the past been a familiar term and a cause of great danger to many travelers who have visited there.

The work undertaken by the Italian government was followed by the most brilliant and satisfactory results. Greece also has been a great sufferer from malaria, for at one time almost a third of its population was affected by this disease, but with the aid extended by Italian experts the mosquito has been largely eliminated from that section of the world.

The United States Government deserves the credit of having carried out the most successful campaigns against the mosquito which have yet occurred. This refers to the extermination of this insect in Cuba and in the Canal Zone.

Previous to the Spanish War yellow fever constantly existed in Cuba and was a great menace to all who visited the country and were not immunes. Now Cuba is practically free from yellow fever, and there is but little or no danger there from this disease.

It is quite well known that work on the Panama Canal some years ago under the direction of the French was discontinued because the malaria present could not be controlled, and it was impossible to secure a sufficient force of workmen in good physical condition. Practically the same methods which were employed in Cuba were carried out in the Canal Zone, and with the same satisfactory results, and malaria so far as interfering with the construction of the canal has been a negligible factor.

Curiously enough, while the United States Government has in other countries secured the most brilliant results in the way of mosquito extermination it has done practically nothing in the way of protecting its own people against the danger of this insect, for whatever work of this kind has been carried out in this country has been the result of activity on the part of the various states, municipalities, or through private enterprises.

Mosquito extermination has long since passed the experimental stage, and there is no doubt as to the success of this work if proper methods are employed.

Mosquitoes propagate only in water, upon the surface of which they deposit their eggs, sometimes 300 or 400 in number. Usually within twenty-four hours afterward the eggs are hatched, and the larvæ drop into the water. These little bodies, commonly known as "wigglers," when full grown are about one-quarter of an inch long, although at first they are very small and may not be detected by the naked eye, except by those familiar with the propagation of this insect; however, after a day or two they may be easily recognized. A very interesting way of studying the further propagation of the mosquito is by having the water containing the larvæ placed in a glass and in front of the light. They will then be seen moving about in the water in a very rapid and jerky way. It is interesting to note that while the larvæ cannot live out of the water they must also have air, and for this reason will every minute or so rise to the surface above which they extend their tail, for this contains the opening of the respiratory apparatus. In other words, it may be said that a larva breathes with its tail.

After a period of six or eight days it will be noticed that the head of the larva becomes enormously enlarged and in appearance very much resembles a "comma" (,). This is the pupal stage and is present about two days preceding the birth of the mosquito. The pupæ will be found rather inactive, except when frightened, and lie close to the surface of the water.

If the observer has sufficient patience to watch the phenomenon carefully, the pupæ will be seen to rise to the surface for the last time, when gradually the envelope or covering which surrounds them is broken and the *full grown* winged insects appear. They hesitate for a moment, resting on the envelope or shell in order to get their bearing, and then fly away.

While there are many varieties of mosquitoes throughout the world, it will be sufficient for the purpose of this article to refer to those which are commonly found in the United States. Two classes may be described, the "inland" mosquito and the "sollicitans," also known as the "salt water swamp," and the "striped legged" or "Atlantic Coast" mosquito.

The most common inland mosquito, the "culex pungens," is also known as the "house or rain barrel" mosquito and is the one usually found indoors. It is of medium size with rather a thin body, its color ranging from a deep yellow to a dark brown, with legs of practically the same shade, having no markings or bands on the back or feet. The "anopheles" or "malaria" mosquito is a variety of the "inland" mosquito, and if carefully examined will be found to have wings which are spotted with brown or black, and when at rest its body is almost at right angles with the surface, while the body of the "culex pungens" or common "house" mosquito is parallel to it.

The "stegomyia" or "yellow fever" mosquito, also of the inland variety, is found only in the southern part of the United States and has the reputation of being the most attractive of all mosquitoes. It is comparatively small, with brilliant stripes on its abdomen, chest and legs; however, the latter are not so pronounced as in the case of the "striped legged" mosquito; besides, it has no transverse stripe on its beak (the rod-like process extending from the head), which is found in the latter. Both the "anopheles" and the "stegomyia"

Digitized by Google

are notorious house mosquitoes and remain close to their breeding places.

The "striped legged" mosquito is not often found in the house but usually carries on its attack outside. It is easily recognized with the naked eye by broad white transverse stripes on its legs and a white broad transverse stripe on its beak. This mosquito is found along the Atlantic Coast and it propagates in such enormous numbers that some of the coast towns are almost uninhabitable.

Formerly it was believed that all varieties of the mosquito breed wherever water can be found. Now we know that the "inland" mosquito will not breed in salt water swamps and that the "sollicitans" or "striped legged" mosquito will not breed inland. This knowledge is of great value in the extermination of these insects.

The breeding places of the "inland" variety are so numerous that they commonly escape detection even on the part of those who are making careful search for them, and for this reason the extermination of this mosquito is often very difficult. About the premises they usually consist of such receptacles as old tin, crockery, and glassware, cesspools, drains, unused water trough, rain water barrels, cistern, broken roof leaders, etc. Urns in cemeteries, statuary in parks, excavations for new buildings, street sewers, water tanks, etc., are also common breeding places.

Contrary to the general belief, mosquitoes do not breed in large bodies of water unless these are particularly rich in organic matter; however, they will breed along the edges in depressions made by the hoofs of animals which come to drink. They prefer small pools rich in vegetation and where they may be quiet and better protected.

While a few varieties of the "inland" mosquito, probably the "anopheles" and the "stegomyia" among them, may prefer cleaner water for breeding, the more common types prefer that which is contaminated and filthy, for it contains more nourishment for themselves and for the future larvæ; therefore, the additional danger of filthy and stagnant water is apparent.

As already stated, the "striped legged" mosquito breeds only in salt or brackish water and not inland. Those who have not seen the great swamps along the Atlantic Coast can form no idea of the enormous number of breeding places they supply in the form of depressions on the surface which are more or less constantly covered with water from the incoming tide.

Mosquitoes are essentially vegetarians and live on plants, fruits, etc., although the females, *the only ones which bite,* crave blood, as those living in the mosquito infected districts will testify.

The larvæ are voracious eaters and they move rapidly about in the water in quest of food which they find in little particles of organic matter. Probably but little or no food is required during the pupal stage, for this is preliminary to the birth of the mosquito.

It is commonly believed that mosquitoes live only a day. There is no truth in this, and although it is very difficult to estimate their life cycle, it may be said that the female probably lives two or three weeks and the male but a few days.

Probably no detail connected with the subject of the mosquito has been more thoroughly discussed than the distance which they travel from their homes or breeding places. The "inland" mosquito is not a migratory insect and usually remains close to its breeding place, probably within four or five hundred feet of it unless blown away by winds. This knowledge is of great practical value in the extermination of this variety, and if it is found in large numbers about the house it may be properly assumed that the breeding place is not far away.

On the other hand, the "striped legged" mosquito voluntarily will go many miles from home.

The sudden appearance of a large number of mosquitoes suggests that they may have been brought from a distance by wind, and if the direction from which it blows is ascertained, considerable information may be secured as to the situation of the breeding place.

There is no doubt that mosquitoes are carried from one place to another over long distances by modern means of travel. This will explain the appearance of these insects in certain sections of the country which heretofore have been free from them.

Mosquitoes are particularly active at night and it is then that they breed and bite. During the day they collect in the tall grass and bushes evidently to rest and to escape the light and heat; this growth also protects them during rain storms.

The sudden appearance of these insects in large numbers immediately after a storm has subsided will often be noticed. The importance of removing this growth about the premises whenever it is practical to do so is evident.

The question is very naturally asked in what way do mosquitoes perpetuate their species from one season to another. In some varieties, as the "stegomyia" or "yellow fever" mosquito, which are found in tropical or very warm countries, there is more or less continued propagation of these insects; however, where there is a decided climatic change, as in the more northern section of this country, or wherever the temperature remains below 70°, some of the female mosquitoes are perpetuated through the cold weather in a state of hibernation or torpor. Late in the fall they seek some warm, protected place, preferably cellars, stumps of trees, barns, etc., and here they remain in a dormant condition until the warm weather returns in the spring, when they become active again, seek a breeding place, lay their eggs and die.

In late years a very curious and interesting thing has been discovered in connection with the "striped legged" mosquito. It is found that this variety, instead of hibernating in the form of the winged insect, passes this state in the form of the egg which is imbedded in the soft earth of the swamp and remains there until it is washed out by the warm tide water in the spring. It then passes through the various stages of propagation already referred to.

We have now learned sufficient regarding the mosquito to identify and exterminate it. To do this successfully we must first ascertain what variety we are to deal with in order that we may more easily destroy the breeding place. Away from the coast it is the "inland" variety which is almost always the source of annoyance.

Breeding places must, if possible, be destroyed and not treated, i. e., they should be removed, drained or filled in, in order that they may not again be available for this purpose. Sometimes this cannot be done, then we depend upon some temporary agent for the destrution of larvæ. The most available agent for this purpose is petroleum oil. This does not poison the larvæ, as it is generally supposed, but suffocates them. We have already learned that the larva extends its tail above the surface to secure air; when the water is covered with oil, the minute opening of the respiratory tract becomes plugged, and suffocation follows. Crude petroleum does not spread evenly over the surface, for it is too thick, therefore *semi* crude oil must be used. This is much thinner and when sprayed on the water immediately forms a film over the surface. In this manner the larvæ are usually destroyed within twenty minutes. A pint of this material is ample to cover an estimated water space of twenty-five feet or more in diameter, and there is no better way of applying it than by the ordinary garden sprinkling pot with the holes in the expanded nozzle enlarged to allow the free exit of the oil. This should be applied about every ten days. There is no other temporary agent which approaches the oil in value for the purpose above referred to.

In dealing with the "sollicitans" or "striped legged" mosquito, it is hardly necessary to state that the use of petroleum oil would be practically worthless for the destruction of the larvæ of this variety, for the salt water swamps are often many miles in extent and it would be impracticable to attempt to cover the surfaces with this material; therefore, the extermination of this mosquito must depend on another method and this is *drainage,* for it is only in this way that water may be constantly removed from the swamp. As mosquitoes cannot propagate without water it follows that their breeding places are by this means destroyed.

This method has been successfully carried out in the United States. The ditches are usually made about ten or twelve inches wide and two feet deep, and from fifty to two hundred feet apart, depending on the character of the swamp land. When large areas are to be drained, the small ditches are made to connect with larger drains, usually three or four feet wide, which conduct the water to the sea. It is true that these become filled when the flood time occurs, but the water remains largely in the ditches rather than on the surface of the swamp and they are practically emptied with the ebb tide.

Suggestions are sometimes made that various kinds of birds, bats, etc., should be propagated in order that they may destroy mosquitoes. Various forms of fish are also used for this purpose in connection with the larvæ in pools and streams. Theoretically these means may appear to be of value, but practically they are worthless, for even an enormous number of birds would make but little reduction of the number of winged insects present. These theories are harmful because they divert the public mind from the only means by which mosquitoes can be successfully exterminated, and that is by the *destruction of their breeding places and in no other way.*

School children are often called upon to assist in the extermination of the mosquito as well as the fly, by destroying the winged insect. This cannot be regarded as a desirable, useful or scientific means of extending aid in this important work, for it has no practical value in reducing the number of these insects. State and municipal health authorities should be held directly responsible for the extermination of the mosquitoes by the destruction of their breeding places. Health laws are sufficiently broad for this purpose in every section of the country, for mosquitoes constitute a menace to health. No further proof is needed as to the success which follows properly organized methods in this work than the results secured by the United States Government in Cuba and in the Canal Zone.

Digitized by Google

Binghamton

LET an imaginary line be drawn 80 miles south from Syracuse; one 60 miles east from Elmira; another 80 miles northwest from Scranton, and at the intersection you may stand with one foot in the Chenango and the other in the Susquehanna, at the center of the Southern Tier's Metropolis, otherwise known as the "Parlor City." Wide, clean, shady streets reach out in every direction.

You will be looking north. On your immediate left lies a suburb which surrounds the biggest shoe manufacturing plant and tanneries in the world, half owned and wholly managed by a Binghamtonian, 25 years ago a bench worker. Here also is a Twelve Million Dollar corporation, marketing an invention of another citizen which records the coming and going of the industrial workers of the whole world. On your right is the magnificent New York State Hospital, with its 1,800 acres, and homes for three thousand mentally ill (no natives). In front of you is the home of Swamp Root, whose remedies may be found on the shelves of every drug store on earth. Still nearer stands an Eight Hundred Thousand Dollar building, housing a Million Dollar newspaper, both of which were conceived, constructed, and successfully launched within one year's time. A bit to the right is another Million Dollar building, which stands as a monument to the memory of the native son who established the Security Mutual Life Insurance Company, and one corner of which provides quarters for our Local Commercial Organization.

If you smoke while reading this, you are probably smoking a Binghamton cigar, for we make more—good ones—than any other city.

One of our principal industries reflects entertainment for a million people daily, for miles of moving picture films in use bear the trade mark of the famous Ansco Company, whose factories are located here.

We already have 146.9% of our station estimate for 1913. The Company has recently purchased a lot, 94 ft. x 165 ft., in the heart of the city, upon which a new building is to be immediately erected.

Keep your eye on Binghamton (spelled without a "p"). It was the home of Jones who paid the freight and weighed all things well. We are going to pay the freight, having already weighed the future.

W. C. SEXSMITH,
District Manager.

Lancaster, N. Y., Celebrates Its Centennial

DURING the week of July 27, Lancaster, N. Y., celebrated its centennial by an "Old Home Week." Committees formed weeks in advance worked with such splendid results that over 20,000 people were entertained the first day.

To assist as much as possible, the New York Telephone Company placed telephones at the various headquarters in anticipation of the increased activities necessary in managing a crowd.

We were featured in the Industrial Parade by a large float, which brought out the world-wide use of the telephone; the design was a huge globe representing the world and showing the outline of the different countries. From different points of the globe brass wires were stretched to two tenpin cross arms attached to a pole placed before a one-position switchboard, operated by a young lady dressed in blue. The drapings of the float proper were carried out in our standard colors, the edges being covered with telephone fans. Boys were stationed on the float and they distributed over 2,000 pieces of advertising literature.

In the automobile parade over 5,000 automobiles were on hand. We were represented by a car having a gaily flowered arch surmounted by a large Blue Bell. Electric lights and Japanese lanterns gave a very pleasing effect and acted as a background to four young women who gave out blue bell fans to the crowds along the way.

It is estimated that over 150,000 people were entertained during the week. The Traffic Department report that a very marked increase in originating calls necessitated the call for extra operators to handle it.

Lancaster has always been taken care of by Bell Service solely, and the New York Telephone Company is praised by all, not only from the point of service, but as a prominent factor in the village development.

E. C. GRASSELL,
Local Manager.

Heard a Fire Over Three Miles Away

HEARING a fire and attendant circumstances at a distance of over three miles is one of the interesting experiences in the life of the Chief Operator at Hamburg, N. Y.

Recently she received a hurried message that Schumer's Hotel, at Armor, N. Y., was afire. As this town has no fire fighting apparatus, Hamburg was asked for help. At this point the calling party dropped the receiver, the line was left open, and for fifteen minutes the operator heard the most chaotic sounds. First there was a death like stillness; then shouting and rushing of feet as the rescuers carried out property that could be saved. A faint roar was then heard as the fire grew in intensity which increased until all else was drowned except the roar of the flames, the crashing of floors and partitions and the falling of merchandise. Rapidly the fire swept through the structure until the flames reached the telephone, when all sounds ceased.

While these scenes were being heard nearly four miles away by the Traffic forces, the Commercial and Plant employees were not inactive. At the first call for help the Local Manager, Wire Chief and Agent Newell rushed to the scene and aided in the checking of the flames and saving of property. The two automatic banks were quickly displaced from the walls by a few well placed kicks, and a few days later were reinstalled in the temporary quarters of the hotel. Before the fire had burned itself out, the Wire Chief had the troubled lines repaired and working properly.

The burned structure was one of the landmarks of Western New York. Built of brick in 1824, it had weathered the ravages of time for nearly a century, only to succumb at last to the fire fiend. Once more, however, the Bell telephone had given evidence that it was a friend indeed by proving itself a friend in need.

W. S. MASON,
Local Manager, Hamburg, N. Y.

Some say that the marketbasket beats the telephone for efficiency marketing. That depends. Carfare, discomfort, fatigue, loss of time—these are to be considered before you go out shopping. Knowing your retailer, then trust him.
(From an article "Scientific Marketing," in *Good Housekeeping* for September, by Martha Bensley Bruere, author of "Efficiency Methods at Home.")

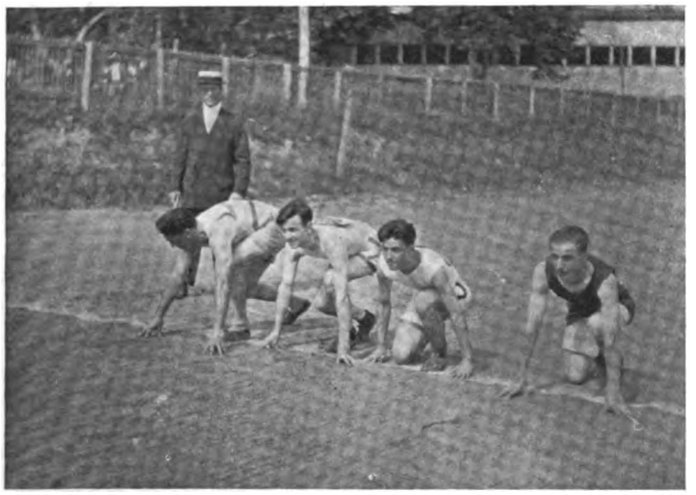
Digitized by Google

FINISH OF FAT MEN'S RACE.

FINISH OF SACK RACE.

COMMITTEE IN CHARGE OF ARRANGEMENTS.

WINNER OF HIGH JUMP.



START OF FIRST HEAT, 100-YD. DASH.

FINISH OF TUG-OF-WAR.

Outing and Field Day, Bell Telephone A. A. of N. J.

OLYMPIC Park, near Newark, was the scene of the first annual field meet and picnic of the Bell Telephone Athletic Association of New Jersey on Saturday afternoon and evening, August 16.

To say that the 1,000 people, young and old, who attended enjoyed the diversified program would be putting it mildly. The lovers of track and field events had their fill of close races and exciting finishes. Funny, indeed, were the fat men's, three-legged and sack races, and the hand line contest also proved very interesting to the spectators. Those who hankered for the dips and thrills found them in the unexcelled roller coaster, and others whose predilections were for musical comedy enjoyed the creditable performance of "Mlle Modiste" by the Olympic Park Opera Company. The "trippers of the light fantastic" were also in evidence.

The B. T. A. A. trophy, a silver loving cup, for the member securing the highest number of points, was won by M. Atchason with a total of 17½ points, M. English finishing a close second with 17 points. Medals were also awarded to the winners of the various events.

Altogether it was a very enjoyable day, and the various committees and sub-committees, of which J. F. Naylon

Digitized by Google

WINNER OF HAND LINE THROWING.

was general chairman, are to be congratulated on their successful efforts.

Summary of Athletic Events

100-yard Dash—Won by M. Atchason; second, J. Conlon; third, H. Newcombe.

220-yard Dash—Won by M. Atchason; second H. Newcombe; third, J. Conlon.

440-yard Run—Won by M. Atchason; second, H. Newcombe; third, W. Garlock.

100-yard Fat Men's Race—Won by C. Rinker; second, W. Koehler; third, G. Flynn.

Hop, Skip and Jump—Won by A. Reinhardt; second, M. English; third, J. Conlon.

Three-legged Race—Won by M. Atchason and W. F. Lynch; second, H. Monahan and R. Pettit; third, A. McChesney and H. Newcombe.

One-mile Bicycle Race—Won by W. Kinnebecker; second, H. Monahan; third, T. Koch.

Standing Broad Jump—Won by P. Costello; second, M. English; third, F. McDonough.

Running Broad Jump—Won by M. English; second, P. Costello; third, R. C. Bennett.

Running High Jump—Won by M. English; second, R. C. Bennett.

Shot Put (16 lbs.)—Won by A. D. Smith; second, G. Flynn; third, C. Rinker.

Hand Line Contest—Won by G. W. Ryan; second, W. W. Mulvey; third, R. Plum.

Tug-of-War—Won by Boonton line gang, Foreman N. Sista.

Telephone Employees Outing at Schenectady

SATURDAY, August 23, 1913, will long be remembered with pleasure by those who were fortunate enough to attend the outing of the employees of the New York Telephone Co., held on that date at Endries Park, on the bank of the Mohawk River, Schenectady, N. Y. If the day had been made to order it could not have been more pleasant. Representatives of all departments from the Central district comprising Albany, Amsterdam, Glens Falls, Mechanicville, Saratoga, Schenectady and Troy were present with their wives and sweethearts, and it was the unanimous decision that the "bake" was the best affair of its kind ever given in the district. The ladies were exceptionally well pleased, as it was the first time they had ever been invited to take part in a clambake.

A baseball game was played between teams representing Albany and Schenectady, and was won by the former, the score being Albany 15 and Schenectady 14.

Following the "bake," which was served at the close of the game, a 50-yard race and a baseball throwing contest for the ladies was held. In the former Mrs. F. L. Flanagan of Schenectady was the winner, Mrs. Roy Bradt, Amsterdam, second. The baseball throwing contest was won by Mrs. A. W. Williams of Schenectady.

F. M. COZZENS,
Local Manager, Schenectady.

N. Y. T. A. C.

THE New York Telephone Athlethic Club has now reached a membership of 600 and hopes to make it 1,000 before many months. A committee is now considering the purchase of a clubhouse, and the indications are that this organization will soon rank wtih the leading athletic and social clubs of New York.

Baseball

Unfortunately, circumstances over which the club had no control made it necessary to cancel the ball game with the General Electric Co. Team scheduled for August 23. The teams in the league, however, are resting on their oars for the fall season, and the Inspectors, who now lead, are promised stiff opposition.

Tennis

A tennis tournament will be held late in September or early in October which will be open to all members. There will be both singles and doubles.

Details may be obtained from any of the Tennis Committee.

Protecting Crops by Telephone

THE modern farmer keeps abreast of the times. His farm appliances are those which will enable him to do his farm work in the most efficient manner possible. The old ways of haphazard farming

OUTING AND CLAM BAKE, SCHENECTADY, N. Y., AUGUST 23, 1913.

Digitized by Google

N. Y. TELEPHONE CO. BASEBALL TEAM, BINGHAMTON, N. Y., THAT DOES SOME STAR PLAYING.

are going rapidly. The farmer is also adapting the rural telephone to his own conditions, some of which are unique even in this day of unusual methods.

The *Western Electric News* reports a novel application of the rural telephone to one phase of farming conditions which has been made by a Wood River Orchard Company operating fruit orchards near Weiser, Idaho. It is a well known fact that one night of frost may spoil an entire season's crop. The Wood River Company having this in mind decided to take measures whereby they could get ample warning of the approach of frost and make preparations in time to ward off its bad effects on the apple crop.

Thermometers of the dial type are placed in each of the four corners of the valley. On each dial face there is a platinum contact which can be moved to any point on the dial while another contact point is located on the indicator needle. For orchard use the dial contact point is placed at about 45 degrees Fahrenheit. When the temperature drops to this point, the two contact points come together and close a local circuit. In this local circuit there is an interrupter or pole changer arranged to send an alternating current over wires which connect with a Western Electric No. 1800 sectional unit type switchboard at the main office of the company. This alternating current operates a signal on the switchboard and indicates to the operator that frost is near at hand. As the thermometers are placed at the four cardinal points of the compass it becomes a simple matter to determine from what direction the frost is coming.

The switchboard operator having received the signal, calls each of the orchard men who would be affected by the frost. They in turn go through their orchards and light smudge pots which have been installed there at the beginning of the season when frosts are prevalent. The time that elapses from the instant that the thermometer circuit is closed until the last orchard man is notified is not over five or ten minutes at the utmost and much of the fruit crop can be saved in this way where frost would ordinarily play havoc with it.

The present equipment of the switchboard is arranged for twenty rural lines. When the necessity for more lines presents itself, another unit containing equipment for the additional lines may be added, the switchboard being designed on the sectional unit bookcase plan.

The farmers have found the frost-indicator telephone system to be of great value to them, not alone from a protective standpoint but from the standpoint of freedom from worry. The farmer can go to bed at night during the frost periods with a peaceful mind assured that his crops are well protected. This affords another illustration of the remarkable adaptability of the telephone to every phase of commercial activity.

A Cable Making Record

During the week of June 9-16, the Hawthorne cable shops of the Western Electric Company turned out lead covered cable containing 256,000,000 conductor feet of wire, or about 48,500 miles, breaking all previous records for this or any other plant.—*Western Electric News.*

The Telephone Game

By Annie Miller Melick

My little girl, six years old, has invented what to me seems an ideal child's game. She calls it "The Telephone Game," and as it requires nothing but our mouths and brains it can be played when I am ill or busy with my mending and sewing. However, I can see how later a paper and pencil will add to its educational value in making figures, and, in time, in writing. We simply call to each other from room to room or use the same room when it is more convenient.

First I am the lady and she is the store, then she is the lady and I am the store. When I am the lady, and ordering, I ask the price of each article, and correct her when she gives prices ridiculously high or low, telling her what they ought to be. In fact I ask all sorts of questions as to my purchases, and she is rapidly getting an idea of the current prices of foods and clothing.

When she calls me up I insist upon her speaking just as she would in a real telephone. She must ask first if she has the number she has called for, then give promptly her own name and address. Then she says she would like to have me "charge and send the following order," or send it C. O. D., as the case may be. Then she gives her order.

I ask, for example, how many yards she wants in each tablecloth; if the napkins must match; and how many pieces she wants in the new china set she is ordering; and I explain the differences. Sometimes we have "trouble" on the wire, and purposely I get her into all sorts of imaginary tight places, to see how she can get herself out of them.

We use the different departments of the store until we have furnished the house, and sometimes this runs on for days. Then we supply the kitchen and pantry, while later we buy clothing and occasionally Christmas presents, always being careful to keep our prices in imaginary buying down to what we can really afford, and lower. The times are such that this is not a bad idea in itself.

She is fast learning the intelligent and polite use of the telephone as well as how to take care of herself in an emergency, while, at least, the current prices are beginning to take shape in her mind.

We are sometimes discouraged over our daughters later in life, because of ignorance along these very lines, when it is often we mothers who are really to blame. We must teach them and we must begin early. Children have a great deal more intelligence than we give them credit for, and they might as well be absorbing something worth while along with their childish play. —*Ladies' Home Journal.*

Digitized by Google

Joint Use

Suggested by H. L. Davis, Engineering Department, 15 Dey Street

AS the joint use of poles by electric light, railway and telephone companies is productive of greater economies in operation, better and safer working conditions, satisfies the desire of the public for improved appearance of the streets, and is of common benefit to all pole using companies, so a free interchange and "JOINT USE" of the experiences and ideas of all the members of our great Industrial Family results in greater efficiency in the performance of our duties, better and increasingly more pleasant working conditions in all branches of the service, through the greater interest that each of us takes in his or her work, brings us all into a closer relationship with the community in which we are placed, by learning how others have pleased the public, whom we are here to serve, and so is of common benefit to all.

H. L. DAVIS.

[This magazine is for the "Joint Use" of all employees for the Common Benefit of all. The articles appearing in it each month represent the interest, ambition and intelligence of a vast army of workers in the common cause.—Editor.]

A Good Time Coming (?)

The happy relation existing between a Chief Operator and the young ladies under her charge could scarcely be illustrated better than by the following incident:

The Chief Operator of a certain office in the New Jersey Division promised her "girls" a treat when she received her bonus. As the time is drawing near, anticipations began to give place to anxiety, for the hostess-to-be hied herself to the seashore for her vacation and left behind her fears that she might spend her bonus before she received it and be unable to appease the longings she had aroused.

What to do? After much deliberation it was decided to send her a gentle reminder. Together they indited a poem to that effect, which also embodied a list of what was expected. The list began with "something to eat," called for "dinner at night instead of noon," "included fares to New York for a time so gay," and concluded with "Let us be boss this time."

Loyal Operators

To the list of loyal employees of the New York Telephone Company who have been put to the test and were not found wanting, should be added the names of Miss Charlotte Crouse, Miss Emma Johnson and Miss Elizabeth Kersting, of the Somerville central office.

On Sunday evening, August 24, at 11:00 P. M. a fire broke out in Dunster's Livery Stable, 15 Division Street, Somerville, causing one death and injuring several. Fifteen minutes after the alarm sounded the three young ladies above mentioned were at the central office ready to assist Miss Ethel Bell, the night operator. The fire burned until Monday noon, the young ladies remaining in the central office until it was evident that their services would no longer be required. —HAROLD S. FOOTE, District Traffic Manager, Elizabeth, N. J.

A "Peach" Story from New Brunswick

Mr. C. R. Meyers, one of our subscribers, is the owner of a large peach farm near New Brunswick, N. J., having about 12,000 trees, and as most of the fruit is handled by the New York markets, his telephone is very essential, especially at this time of year.

Recently Mr. Meyers' telephone was put out of service by a severe thunder storm. He immediately notified the Commercial Office, and within a few hours his service was restored.

As evidence of his appreciation of the prompt and courteous attention given by all departments and the efficient service always rendered by the operators, Mr. Meyers brought to the office a large basket of peaches which were distributed among the employees. —D. H. MCCANN, C. C., New Brunswick Com'l.

"Rabbitt" Wanted

On a New York call for the "Bunny Hotel" at Watervliet, Information reported "nothing listed." New York asked to have the report verified and gave the address of the hotel. Information again looked it up and found the listing, "Park Hotel—Rabbitt, Proprietor." On being notified, the subscriber said: "That's what I want. I had the name slightly twisted, but it is the same animal, anyway."

Legal Tender

A Watervliet subscriber who frequently calls for "Watervliet 150" insists on asking for "a dollar and a half." Another calls for "two for a nickel" when he wants "Watervliet 245."—(Miss) K. F. DUFFY, Chief Operator, Watervliet.

Ten Cents' Worth of Albany

Cohoes, N. Y., subscriber—"How much is it to talk to Albany, Central?" Operator—"Ten cents for three minutes." Subscriber, a little later—"Central, will you give me 10 cents' worth of Albany, please?"

It Was for the Company

A Cohoes Operator (evidently a student) came in on a Cohoes circuit and asked the "B" operator for "Official 60." The "B" operator asked, "Your office?" The student repeated, "Official 60," and on being questioned again replied, "It's for the Telephone Company."—(Miss) M. KENNEDY, Chief Operator, Cohoes.

Buffalo Notes

Either Buffalo's reputation as a summer resort or the new Telephone Building has made the city a Mecca for telephone vacationists this season. During the past month traffic representatives from Philadelphia, Chicago, Detroit, Cleveland, Boston, Syracuse, Jersey City and Richmond, as well as New York, have visited the building where they were afforded an opportunity to inspect the Seneca and Buffalo Toll operating rooms. The many congratulations on the appearance of our Division Headquarters were very gratifying.

Buffalo is noted for its hospitality, and visitors to Western Division Headquarters will always find the latch string on the outside and a warm welcome within.

The company's civic pride in erecting the tallest building and one of great architectural beauty in Buffalo is seconded by its patriotic display of the American flag on holidays. This flag, which measures 60 x 40 feet, is the largest in Buffalo and is swung over Church Street suspended by a cable extending from the sixth floor of the Telephone Building to the roof of the building opposite.—F. L. JACKSON, Ass't Dist. Traffic Chief, Buffalo.

Digitized by Google

Did He Get It?

Our Schenectady Information Desk reports the following inquiry:

"Say, Information, I want to talk to a garage here in town, one of the largest ones. I don't know the name, nor can I tell the street on which it is located, but you gave me the number two weeks ago, which I have forgotten. I do remember this, that there is an '0' in it and the name does *not* start with a 'p'."—(Miss) F. G. CARNCROSS, Mgr. of School, Albany.

Eye Glasses By Telephone

A few weeks ago a telephone message was received at 10 A. M. from Nazareth, Pa., by an oculist in New York City, directing him to mail at once a new pair of spectacle lenses as the calling party was helpless without them. The lenses were sent by special delivery at noon and reached their destination at 6 P. M. the same day. —B. F. RUEGE, C. C. Dir. Advtg. Dept.

Fond of Their Work

A day operator at Asbury Park, whose hours begin at seven A. M., reported one morning recently at 6:15, much to the surprise of the night chief operator who had not requested extra help. She explained that she "had been to church and got out early," so she came to the office as she liked operating better than being alone in the rest room.

While spending their vacations in Asbury Park this summer, a number of operators from other offices have visited the local exchange where they displayed considerable interest in a sea-shore telephone office. During a busy period after a storm, a visiting chief operator, a school manager and a member of the rules committee rendered great assistance. — (Miss) PHEBE F. SQUIER, Chief Operator, Asbury Park.

Flatbush Traffic

On being connected with the special operator, a subscriber remarked, "Well, I'll be hanged. I've heard of all kinds of specialties, but never of operators. What's your line?"
(Miss) A. C. BURKE, Eve. Chief Operator, Flatbush.

Bell Telephone Fans Popular at the "Movies"

One of the best places to distribute Bell Telephone fans is the ever popular moving picture theatre. Recently we placed about 2,000 in the largest theatre of this kind in Rochester, which is attended by about 30,000 people each week.

The management co-operated by running a slide on the screen at each performance (there are about eight a day) calling attention to the fact that the fans were furnished by the New York Telephone Company and could be obtained at the rear of the theatre. A sign placed over the fans also gave this information, with the request that patrons return them on leaving the theatre.

One evening recently, I visited this theatre and looking from the rear could see scarcely anything except one huge blue wave. It seemed that everyone in the house was using a "Bell" fan.

The success of this plan has led to the placing of fans in two other theatres under the same conditions.—B. F. GIBSON, Chief Clerk, Rochester Com'l.

Two From Schuyler

One stormy evening recently a subscriber made the following request: "Operator, is it possible for me to hire a taxi and have it charged on my telephone bill? I have a very important engagement to keep and have no ready money."

An operator answered a subscriber who claimed she had deposited two nickels in order to get "Central." She was referred to the supervisor and, incensed because she thought her word was doubted, exclaimed, "No wonder those telephone operators dress so swell; you just look in her shoe, and I'll bet you find the nickel." —(Miss) MAY BOYNAN, Supervisor, Schuyler.

Wrote the Wrong Prescription

A physician in the Newark District discovered on looking over his duplicate prescriptions that he had prescribed the wrong medicine for a patient he had just visited. If the medicine was taken, it meant instant death.

He lost no time in getting Information on the telephone and explaining the circumstances. She quickly called several drug stores near the patient's home and finally connected the doctor with the right one. He learned that the alert prescription clerk had discovered the grave error and had not compounded the medicine.

In appreciation of the promptness with which the matter was handled, the doctor again called up and expressed his gratitude.—GEO. H. ESLER, Evening Ass't Traffic Mgr., Newark.

Trading Stamps With Telephone Calls

As an advertisement and builder of business the use of trading stamps has developed remarkably within a few years, and persons often are willing to go a considerable distance to patronize a merchant who issues them.

Ackerman's Bazaar, Mt. Vernon, have a pay station in their store and give a trading stamp with each five cent call made over it.

This is a unique scheme. Not only does Mr. Ackerman increase the revenue from his pay station, but by encouraging the public to telephone from his store, he is certain to secure more and more customers for the goods he sells.—A. V. SEDGWICK, Mt. Vernon Com'l.

His Wife Was Away

A subscriber recently called in and asked the operator if she could tell him how to make coffee and fry eggs. She connected him with Information who furnished the desired recipes. After expressing his thanks, the subscriber started to sing, "My Wife's Gone to the Country."—Chief Operator, "Branch Brook" (Newark).

Wanted! A Minister

Recently while I was on duty at the special operator position in the Yonkers Central Office, a gentleman called quite a few numbers that were temporarily discontinued. Being very busy at the time, I did not notice that the numbers were all those of clergymen, until ten or fifteen minutes later I again had a call over the same line. It was the city clerk, who said, "Central, can't you please help me out? This is the City Hall. There is a young couple here waiting to be married, and I am badly in need of a minister. We have given them papers and magazines to read, trying to make things as pleasant as possible while they are waiting, but they seem too excited to read." I mentioned several ministers' names, but all were either away on vacations or out until evening.

Growing as tired as the newlyweds-to-be, the City Clerk then said, "Central, never mind trying any more, as I think we have tried about all the parsons in Yonkers. Appreciating your kindness, we will have to postpone the ceremony until evening."—(Miss) MAY R. KELLY, Operator, Yonkers.

Digitized by Google

Elizabeth Traffic

Subscriber—"I just called a local number and put 25 cents in the telephone. I'm all through now, so will you please give me 20 cents change."

A lady called up recently and said she had just passed a baker shop with a fancy cake in the window which she would like to order by telephone. She did not know the address of the shop but stated that it was on First Street, next door to a house with a crepe on it.

When a "don't answer" report was verified by the manager's office recently, the subscriber remarked, "Well, it's very funny; it's a place where they lay eggs."

An operator asked a subscriber for his letter, but could not make him understand, so she asked him for his number. He replied, "My number? I have no number. What do you think I am—a box car?"—Chief Operator, Elizabeth.

Not the Minister, But the Carpenter

A subscriber called Information and asked if the minister at ——— who expected to be married had a telephone. She did not know his name. When the operator replied that she was unable to locate the reverend gentleman, the subscriber said, "Well, I didn't want the minister anyhow, but the carpenter who is working there."—M. E. KIRBY, Ag't and C. O., Eastport, L. I.

A Word of Praise

IN these days when it seems to be the fashion with so many to withhold praise for the good work done by the Public Service Corporations, it is indeed most gratifying to receive such a hearty word of commendation as is contained in the following letter:

LONDON WINE & SPIRIT CO.,
DISTILLERS AND IMPORTERS,
14 Water Street,
New York, Aug. 1, 1913.

N. Y. Telephone Co.,
15 Dey St., New York.

Gentlemen:

It is always pleasant for any Company to receive praise where praise is due for prompt and efficient service, as I can fully testify that your Company is rendering the public.

I had occasion to call up a gentleman on 97th Street on Wednesday last and invited him to my residence for the evening, and another gentleman on Nassau Street; afterward my residence in Brooklyn, with short conversation in each instance, the three calls consuming the short period of five minutes by actual count. This I claim is rapid and splendid service of the N. Y. Telephone Co. and nowhere can it be excelled.

Very truly yours,
(Signed) GEO. H. ARMSTRONG.

Acknowledging Operator's Repetition

Editor *The* TELEPHONE REVIEW.

OUR attention has been called to your editorial, "Set the Example," in the April number of *The* TELEPHONE REVIEW, and also to Mr. Smith's article, "'Thank you' or 'Please'," on page 204 of the July number, both of which relate to the acknowledgment of the operator's repetition.

As you pointed out, it is highly important that the repetition be acknowledged, whether it is correct or incorrect, as it is of great assistance to the operator to know definitely that she has gotten the number correctly from the subscriber and to be able to proceed with the connection, therefore, with a feeling of certainty. With this in mind, the operating instructions provide that an operator in repeating a call should use the rising inflection *"as though expecting a reply from the subscriber."*

In the "General Information" section of the last issue of the New York City and the New Jersey telephone directories, under the heading "How to Use the Telephone," the following paragraph appears, in connection with instructions regarding giving a number to the operator:

"After giving the number, listen to the operator as she repeats it. If she repeats the number correctly, say, 'Yes' or 'Right.' If she does not repeat the number correctly, say, 'No' and give the number again."

This suggestion was included with the idea of educating subscribers to acknowledge the repetition of calls in such a way to indicate clearly whether the repetition was correct or not.

The acknowledgment "Please," as suggested by Mr. Smith's Pioneer, seems preferable to "Thank you," but it is felt that the definite "Yes" or "Right" is much better even than "Please," as there is no mistaking its meaning. Any form of acknowledgment is, of course, better than none, but why not urge everyone to use the best form and the one which is given in the advice to subscribers as to how to use the telephone?

J. L. TURNER,
Traffic Rules Committee.

Organization Changes

METROPOLITAN DIVISION

H. R. Gabay, Division Plant Engineer, Metropolitan Division, transferred to the Commercial Department to do engineering work.

A. H. Mellinger appointed Division Plant Engineer, Metropolitan Division.

H. H. Shearer appointed Division Plant Engineer, Long Island Division.

The Telephone Sermon

"THE telephone has enabled me to effect a big reduction in my rent bills," said a prominent coal merchant of Albany recently in conversation with a group of people, one of whom was the writer. "Before its use became so general," he said, "I found it necessary to maintain an expensive office in the business center of the city in order that my patrons could place their orders conveniently, but since the telephone has become so universally used, I have found it possible to move my office to my yards without inconveniencing my customers in the least, but on the other hand realizing to myself a saving in rent, together with a greater concentration of my plant."

This expression of appreciation on the part of the speaker loses no whit of its sincerity because of the fact that it was inspired by a trip he had made through the local telephone exchange at the invitation and under the escort of the Local Manager, Mr. S. H. Brown. The merchant expressed a deep interest in what he had seen on that visit—the central office equipment, the terminal room and the various offices with their careful arrangement in every detail, and said he was especially impressed with the clean-cut business-like appearance of the employees, both men and women, whom he saw in the several departments.

Were we qualified we might write a complete sermon for the telephone man on this little incident. Outlined in the well known and popular ministerial style, it shows us:

First: That our subscribers do not begin to realize, until they have seen it, the extensive amount of delicate equipment which is employed in the making of a telephone connection.

Secondly: That, having seen, they appreciate the complexity of the telephone problem and the great care which the Company exercises to furnish the highest grade of service possible.

Thirdly: That the subscriber knows sometimes better than we do how valuable his telephone is to him and a little special attention on our part will lead him to tell us about it.

Fourthly: That even as a man is known by the company he keeps, so is a company known by the men (and women) it keeps.

From these facts we deduce, "in conclusion":

(a) That it pays to take the public into our confidence and tell them and show them all we can about this big business we are running—in their in-

Digitized by Google

terests as well as in our own. It is interesting and instructive to them and of inestimable value to the Company. Especially can we make friends for the Company among people who may come to our offices with some grievance, real or fancied, by letting them learn at first hand some of the intricacies of our business that have brought about the conditions of which they felt there was cause to complain. By this method the subscriber will invariably see the reasonableness of our position, or if the mistake has been ours, he will be more inclined to wonder that our errors are so few than to censure us for those we do make.

(b) That it is most important that we, the employees of the Company, give careful attention to our personal appearance and that we constantly show an attitude of loyalty to the Company's interests, for we are the biggest advertising medium the Company has, and largely by its contact with us does the public pass judgment, favorably or unfavorably, upon the organization for which we work.

E. N. BULL,
Com'l Dept., Hudson Div.

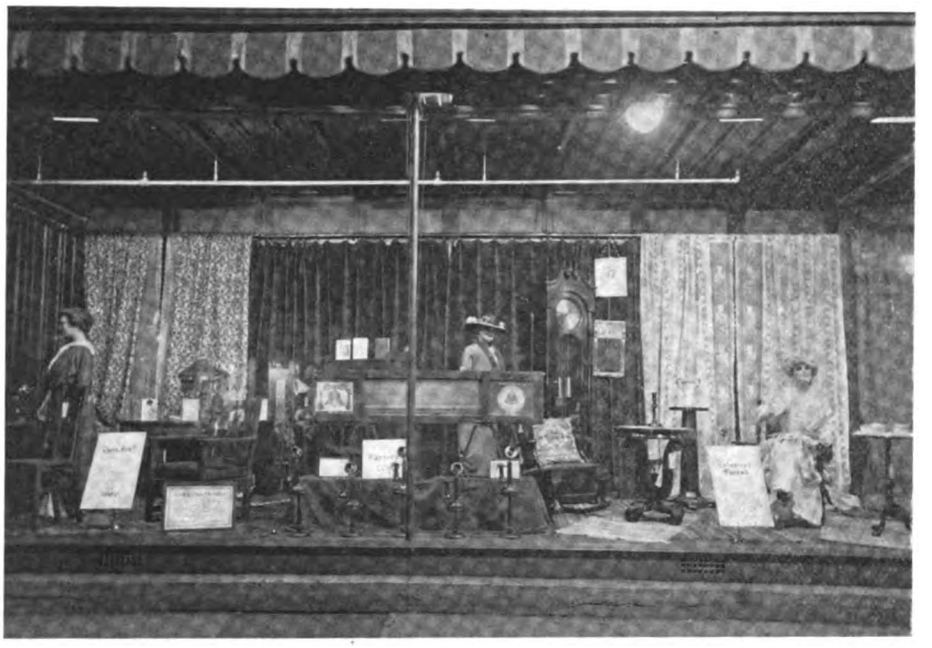
A Congenial Comrade

TWO medical scientists in New York recently conducted an interesting experiment in an effort to solve the problem of the high cost of living. As food is the fuel which runs the body, they endeavored to learn positively how the enterprise of human life may be most economically and efficiently run.

The apparatus used in the experiment is known as a respiration calorimeter, a sort of air-tight cell in which a man is confined. The air he breathes is fed into the room by a device which admits it fresh and of a temperature so even that it will not affect a thermometer that records variations as minute as one-ten-thousandth of a degree. Carefully selected food is passed through a sectional tube, and a stationary bicycle gives the inmate a chance to exercise. With all this careful attention to details some interesting information was secured.

Many readers are doubtless beginning to say to themselves, "Very interesting, but what has it to do with the telephone?" It would merely be necessary to invite a person to spend a day in this veritable prison cut off from the outside world to find out what the telephone has to do with it. He would be very likely to decline with thanks unless he had some way of communicating with those on the outside.

Here then is the answer. Right at the inmate's elbow was the indispensable telephone ready for action at all times. Can anyone imagine a more useful and trustworthy companion? Not only was it an absolute safeguard to the man within, but it enabled those in charge without to give him instructions. Also, he had opportunity to talk with any of his friends and acquaintances, which banished the idea of complete isolation and made the time pass more pleasantly.



SUCCESSFUL WINDOW DISPLAY OF H. S. BARNEY CO., SCHENECTADY, N. Y.

Bargains by Telephone Only

THE window shown in the accompanying illustration was on display July 28, 29 and 30. It attracted a great deal of attention and the advertising manager of H. S. Barney Co., the proprietors, informed me that their telephone business was greatly increased on account of it.

During the display they ran advertisements in the papers calling attention to the window and listing a large number of articles which could be purchased at greatly reduced prices by *telephone only*. This concern is featuring its telephone connections in advertising. They have a Private Branch Exchange, consisting of 7 trunks and 35 stations.

Every evening during the display the window was kept lighted until midnight and was inspected by a large number of people. The crowds gathered in front of it at times nearly blocked the sidewalk.

F. M. COZZENS,
Local Manager, Schenectady.

Bergen News Adopts a New Method of Securing Advertisements and Subscriptions

THERE are many and varied uses to which the telephone is put in the daily transaction of business, and yet we constantly hear of novel ideas.

One of them that has recently come to our notice is a special campaign conducted by the *Bergen News* of Hackensack and suggested to them by Local Commercial Manager Howell.

The method adopted accomplishes a two-fold purpose—that of securing new advertisers and increasing the list of paid subscribers. The scheme is to telephone the prospective advertiser, solicit his advertising and offer to place it on the "telephone order" page of the newspaper as catering to telephone orders. This educates the reader to turn to the "telephone order" page whenever he wishes to order any commodity, thus making the page of great value to advertisers.

The *Bergen News* is also publishing on this page the advertisement of the New York Telephone Company, and on Saturday the list of telephones connected during the week.

At the same time a telephone campaign is being conducted to increase by 500 the number of subscriptions to the newspaper, in order to secure advertising from the New York business houses. This is being done by telephoning each telephone subscriber in Hackensack and vicinity and soliciting a subscription. The success of this plan is evidenced by the fact that new subscribers are being secured at the rate of between 75 and 100 each week.

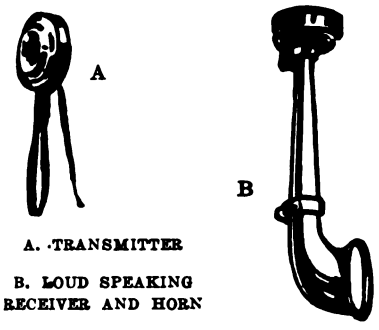
Digitized by Google

From a Limousine to the Depths of a Coal Mine

TWO articles of wide and popular interest appear in the *Western Electric News* for August. Both refer to new equipment put out by the Western Electric Company, one describing a telephone for automobiles, and the other a new mine rescue telephone equipment.
The articles follow.

The Western Electric Chau-phone
A Telephone for Limousines

THIS month's cover shows a scene on Fifth Avenue, New York, just below the Waldorf Astoria hotel. In the foreground is a limousine, the occupant of which is giving some direction to her chauffeur. In order to make herself heard without leaning



A. TRANSMITTER

B. LOUD SPEAKING RECEIVER AND HORN

out of the car she is using one of the company's latest telephonic appliances, the Chau-phone. This is a telephone, adapted for use in limousines, taxicabs, and other closed-body types of automobiles.

Experience has shown the speaking tube to be very unsatisfactory for automobile use. The wind, when the car is moving, blows into the tube and deadens the sound of the voice, while the elastic tube wall, by absorption, completes the muffling effect.

The Chau-phone obviates this difficulty. It consists of a hand transmitter for the passenger, connected to a loud-speaking receiver at the chauffeur's ear. Orders spoken in an ordinary conversational tone are delivered by the megaphone-shaped receiver, with the volume of sound so magnified as to be readily heard above wind and street noises.

The design of the transmitter is such that no battery current is consumed while it is not in use. When the user picks up the instrument, he presses a small button in the handle. This closes the circuit. When the transmitter is not in use, it is placed in a pocket in the upholstery of the car, next to the rear seat.

The receiver is so designed that it may be used for either right or left hand drive. The shape of the horn both increases the sound volume and raises the pitch of the speaker's voice, thus ensuring clear enunciation. The entire instrument is weather proof. It comes finished in dull black, nickel, or polished brass.

The Chau-phone can be installed on either used or new cars, all wiring being concealed. It is operated usually by the regular car batteries—6 to 8 volts, the current required being so small as to be negligible.

Although the Chau-phone has been on the market only a short while, it has met with instant success, and is being used by several large automobile manufacturers as part of their regular equipment. Among our foreign houses, St. Petersburg has the distinction of being the first to place an order for the new instrument. At St. Petersburg they evidently know a good thing when they see it, for as soon as the Chau-phone was announced, our house there ordered an immediate shipment of ten samples. The other foreign houses will have to hurry if they do not want their Russian friends to beat them in the sale of this apparatus.

A New Mine Rescue Telephone Equipment

A SPECIAL portable telephone equipment has just been developed by the company for use in rescue work in mines, tunnels, and other places where atmospheric conditions are dangerous.

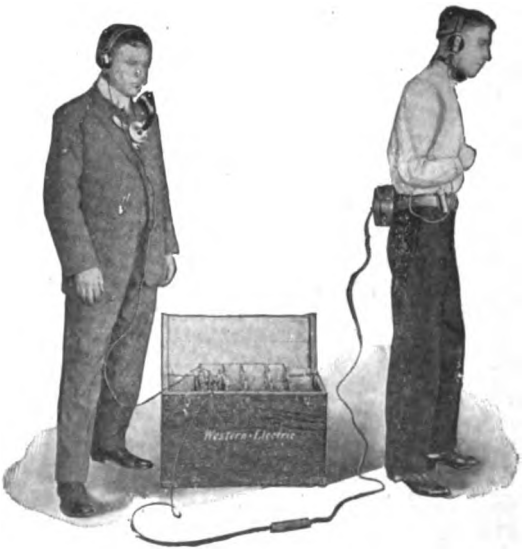
This special equipment was made necessary by the fact that a man wearing an oxygen helmet, which covers his mouth, cannot use the ordinary type of telephone transmitter, so that a special type of transmitter known as the "throat" transmitter, has been developed by our engineers to meet this unusual condition.

The transmitter is light and compact and is provided with a soft rubber cup to adapt itself to the curves of the throat. This throat transmitter has been found by actual test to transmit speech practically as well as the standard Bell instruments.

Both receiver and transmitter are held firmly in position on the man's body in such a manner that they will not interfere with any type of oxygen apparatus now on the market. The telephone equipment used by the man at the outside or directing end consists of a chest type transmitter and head band receiver. The rescue party is connected with the rear by means of a small wire cable. This wire is in 500-foot coils and is carried in a leather case, fastened to the helmet man's belt, paying out as he advances.

The total weight of telephone equipment carried by the helmet man, including one coil of wire, is only a little over five pounds.

In many cases it may be found desirable to use cable for carrying the talking circuit down a shaft or into a slope up to the edge of the danger zone. For this purpose a large box, including a cable reel is furnished, holding 1,300 feet of flexible cable.



At the right is shown the rescuer's head set, including the throat transmitter (below). The picture on the left shows the complete apparatus and its method of employment.

THE NEW MINE RESCUE TELEPHONE SET.

Digitized by Google

LINEMEN DEPENDING UP A MESSENGER.

Long Span Across Gunnison River, Colorado, Safeguards Telephone Service

APROPOS of the recent disastrous floods in the middle west, we are reminded by the *Mountain States Monitor* of a severe flood in the Gunnison River region of Colorado during the spring of 1912, which also caused considerable damage to telephone lines. The magazine then describes the construction of a long span which was run over the river at Delta, Colorado, and took the place of wire attachments on the North Delta highway bridge, thus safeguarding telephone service for the future.

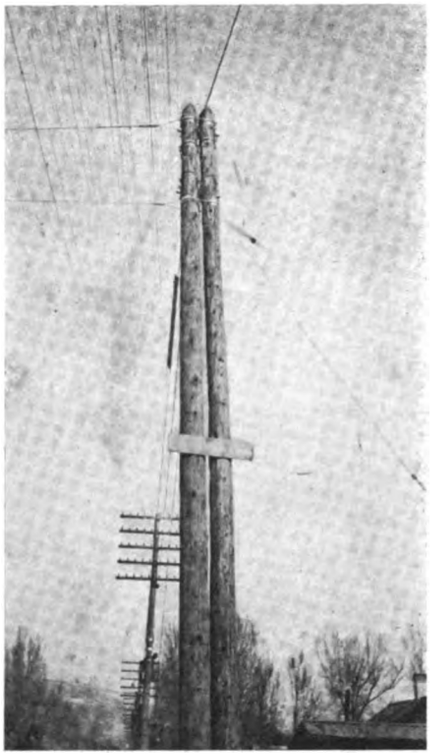
Owing to the length of the span and the weight of the load to be carried as well as the liability of heavy accumulations of wet snow or sleet and the absolute necessity for a shallow sag in order to keep out of the reach of drift-wood at flood time, special material was needed. Consequently, a special steel messenger of ⅝ of an inch diameter, having a breaking strength of 47,000 pounds, was decided upon.

In order to simplify construction, it was decided to run one messenger of the ⅝-inch strand to carry the toll lines and one to carry the 100-pair cable.

To care for present and future local exchange lines, a 100-pair No. 22 gauge paper-insulated lead-covered cable was selected; the toll service was to be cared for in five standard open wire copper circuits.

PLACING A SUSPENDER.

CROSS-ARM FOR TOLL AND PLACING CABLE RINGS.



FRONT VIEW OF TWO-POLE TOWER, SHOWING SPECIAL ARRANGEMENT AT TOP.

A two-pole tower was designed for support at each end of the span. These towers, of heavy 45-foot poles, were raised into position by a "gin pole" and heavy tackle, and set to a depth of 8 feet in concrete. In order to make them more permanent, they were securely guyed in three directions, to anchors or anchored stubs, with standard 16,000-pound strand and all anchors bedded in concrete.

The cable was drawn in by a team of horses, using a No. 8 iron wire for a "pulling-in line." In the entire construction there were used 2,085 feet of special ⅝-inch steel messenger and about 1,300 feet of 16,000 pounds strand. It took practically four weeks to complete the entire installation as weather conditions were adverse to rapid work.

The main span is 544 feet long and has the distinction of being the longest span of cable in the territory of the Mountain States Telephone and Telegraph Company.

We are indebted to the *Mountain States Monitor* for the accompanying illustrations.

Got Range of Target by the Telephone

San Francisco, June 19.—Fifteen of the twenty shots fired from one of the San Francisco mortar batteries last night struck a target 5½ miles out at sea. For night practice this is regarded as an unusual score. The target which was picked up by five powerful searchlights from the shore, was not visible to the gunners who fired from a pit behind a hill. The range was telephoned to them from the stations overlooking the entrance of the harbor.

Digitized by Google

The Idle Hour

My Telephone

To C. A. P.
(Contributed)

Oh Telephone! How grateful I am to thee!
Yesterday, thou wert to me a lifeless thing,
Today, my bosom jumps at every ring,
Because through thee my sweetheart speaks.
I almost clutch at thee to see
If at the other end my sweetheart be
To issue her commands to me.
So, oh Telephone! I love thee,
Thou Godsend that doth bring my heart to me.

Oh Telephone! How I envy the waves that are thy being!
A million slaves made by my sweetheart's voice,
That speed to tell me of her slightest choice.
Unseen, and far from me, they mingle with her breath,
Her tender dulcet voice doth make them rise and set,
Her rippling baby laugh doth make them wavier yet,
And make of me a slave—but with a coronet.
Thus, oh Telephone! I love thee,
Thou Godsend that doth bring my heart to me.

Oh Telephone! How thou art truly privileged!
My heart doth bring her lips *so* close to thine,
Much closer than she dare to mine.
I know that thou dost tremble when she speaks,
I pray thee, lose not thou her smallest sign,
For if thou dost, one person's loss is worse than thine,
And that is mine.
Still, oh Telephone! I love thee,
Thou Godsend that doth bring my heart to me.

Oh Telephone! How thou hast banished many a haunting fear!
For, when storm and flood had kept my heart from me,
Though rain, and ice, and wind surrounded thee,
Thou didst open for me a sunwarmed path,
Tranquil as a summer even, a thing apart,
Hallowed leading to my sweetheart's heart,
Whence I never may depart.
Therefore, oh Telephone! I love thee,
Thou Godsend that doth bring my heart to me.

A "Hoosit"

A Chicagoan who employs a Swedish maid overheard the following conversation the other day between her cook and the maid next door, also a Swede:

"How are you, Hilda?"

"I well, I like my yob. We got cremated cellar, cemetery plumbing, elastic lights—and a 'hoosit.'"

"What's a 'hoosit,' Hilda?"

"Oh, a bell rings. You put a thing to your ear and say 'Hello,' and some one says 'Hello,' an' you say 'hoosit.'"—*British American.*

Hinting

He—If I wish to get you, may I go to a telephone and ring you?

She—Don't you think it would be handier for you to call at my home and do so?—*C. S. Monitor.*

On the Trail

"Mrs. Blitherton must be awfully in love with her husband."

"Why do you think so?"

"She calls him up by telephone at least a dozen times a day."

"I wonder what the rascal has been doing to arouse her suspicions?"—Chicago *Record-Herald.*

That Familiar Phrase

In the telephone office there was one girl who was always late in the morning.

Time and time again the local manager requested her to be more punctual; but her tardiness still continued, until he was moved to use desperate methods.

"Now, Miss ——," said he as he came to her exchange board one morning, carrying a package in his hands; "I have a little scheme that I hope will induce you to arrive at the office in time. I have bought this fine alarm clock for you. Please promise me that you will make good use of it."

The young woman promised, and the first night set the alarm at the required hour for rising the next morning.

At the indicated hour the clock set up a tremendous whirring, loud enough to awaken the whole house. But the sleepy little lassie turned over in bed and said in her sweetest tone:

"Line's engaged; call again, please."—*Tit Bits.*

Wise Boy

Father—That young man of yours has more brains than I gave him credit for.

Daughter—Oh, papa, you don't really mean it?

Father—Yes; instead of coming to see me he called me up on the telephone.—*Philadelphia Telegraph.*

Useful

The telephone is a great invention. It enables a woman living in the country to find out what her sister twenty miles away had for breakfast.—*Nyack Star.*

The Hint

The young man had talked for ten or fifteen minutes without a break, when the girl at the other end of the wire interrupted.

"Just a moment, Guy!" she said.

"What is it, Fleda?"

"I want to change the receiver to the other ear. This one's tired."—*Chicago Tribune.*

One Exception, At Least

Wills—"When a man has a good thing, he insists on everybody else using it."

Gills—"Not much. I guess you haven't got a telephone in your house, have you?"

ORANGE INSTALLER.

Appreciation

Dear Old Lady (using call office telephone for the first time, to operator at the exchange)—And as you've been so nice and attentive, my dear, I'm putting an extra penny in the box for yourself.—*Punch.*

The Things They Ask

A woman living in an aristocratic suburb a mile and a half from her grocer goes to the telephone:

"This you, central? 454, please."

"This you, Mr. L.?"

"Please charge and send 10 cents worth of animal crackers and pick out the elephants; as the baby is afraid of them."—*Retail Grocers' Advocate.*

His Phoney Bluff

The young lawyer had just opened his office, and his new shingle, the paint scarcely dry, hung outside the door.

A step was heard outside, and the next moment a man's frame was silhouetted against the ground glass of the door.

Hastily the legal fledgling stepped to his brand-new telephone and, taking down the receiver, gave every appearance of being deep in a business conversation.

"Yes, Mr. B.," he was saying as the man entered, "I'll attend to that corporation matter for you. Mr. M. had me on the telephone this morning and asked me to settle a damage suit for his railroad, but I had to turn him down, I'm so rushed with cases just now. But I'll attend to your matter, although I will have to sandwich it in somehow between my other cases. Yes, yes. All right. Goodby."

And, hanging up the receiver, he turned to his visitor, having, as he thought, duly impressed him.

"Excuse me, Mr. Young," the man apologized. "But I'm from the telephone company. I've come to connect up your instrument."—New York *World.*

MORE PERFIDY.

"Why, Augie Ferris says you proposed to *her* last night. My, my! These are busy times for the little proposer, aren't they?"—*Life.*

Digitized by Google

Fairy Magic—Telephone Reality

A tent large enough to shelter his vast army, yet so small that he could fold it in his hand, was the gift demanded by a certain sultan of India of his son, the prince who married the fairy Pari-Banou.

It was not difficult for the fairy to produce the tent. When it was stretched out, the sultan's army conveniently encamped under it and, as the army grew, the tent extended of its own accord.

A reality more wonderful than Prince Ahmed's magic tent is the Bell Telephone. It occupies but a few square inches of space on your desk or table, and yet extends over the entire country.

When you grasp it in your hand, it is as easily possible to talk a hundred or a thousand miles away as to the nearest town or city.

In the Bell System, 7,500,000 telephones are connected and work together to take care of the telephone needs of the people of this country.

As these needs grow, and as the number of telephone users increases, the system must inevitably expand. For the Bell System must always provide a service adequate to the demands of the people.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google

Is There A Telephone On YOUR Desk?

—or do you have to leave your desk, walk across the room, lean over someone's shoulder and interrupt ***his*** work when ***you*** want to send and receive telephone calls?

Every man who has a desk should have a ***telephone*** on it, and ***your*** efficiency will be greater and your waste of time and energy less if you ***insist*** upon a telephone on your desk as part of your working equipment.

Why not see about YOUR telephone <u>today?</u>

NEW YORK TELEPHONE COMPANY

AMERICAN TELEPHONE & TELEGRAPH CO. LOCAL AND LONG DISTANCE TELEPHONE BELL SYSTEM AND ASSOCIATED COMPANIES

Digitized by Google

L. B. Dalmont 619

Vol·4·No 10 THE October·1913

TELEPHONE REVIEW

Digitized by Google

Always Time to Telephone

IN the course of your day's work, there are times when you are too late to travel to see a man on a matter that you wish to decide promptly. Possibly you know that he is going to leave his office shortly; possibly unexpected delays have prevented you from keeping up with your day's schedule.

No matter what the delay, or how short the time—there is always time to ***telephone.***

Public telephones, located everywhere throughout the city, will ***take your voice*** there at once, allow you to complete your business transaction quickly and make possible an interview that would be lost but for the telephone. And in nearly every case the interview ***by telephone*** will be as satisfactory and productive of results as a call in person.

When a personal trip would get you there too late, remember *there is always time to telephone.* Just look for the Blue Bell Sign—the sign that saves time—and interview him *by telephone—on time.*

NEW YORK TELEPHONE COMPANY

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV | NEW YORK, OCTOBER, 1913 | NUMBER 10

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to J. D. Newman, Editor.

VOL. IV OCTOBER, 1913. No. 10

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

Extending the Service

FROM month to month we have printed information regarding outside development work planned or under way, showing where and how large amounts are being expended for improvements. By no means all of even the very large appropriations have been commented upon, and in addition there is continually progressing in all parts of the company's territory an enormous amount of repair and development work reaching a tremendous sum in the aggregate, about which little or nothing has been said.

Four appropriations mentioned in this issue alone aggregate more than $400,000, and two other districts are referred to which will add many thousand dollars.

One fact that stands out impressively in all these appropriations is that the Company is planning and building for the future, not merely providing for the present. "Twenty years ahead!" is the slogan, and this means, not that buildings and equipment and construction to be adequate twenty years hence are now being built and installed and constructed, but that work is being done that can be added to, and built upon, and extended, or serve temporarily until other foreseen conditions arise, and thereby become part of a scientific and definite plan which includes the whole territory of the Company.

This will gradually give every locality telephone plant and facilities that will meet any demand made upon them. In the very nature of things all of it cannot be done immediately and simultaneously.

An incredulous smile usually denotes the disbelief accorded the assertion that the greater the number of telephone subscribers the more expensive it becomes for the telephone company to render service. While the description given of the new work in progress in the Bedford District, Brooklyn (on page 285), does not embody all the items that enter into this increased expense, it does afford a sufficient demonstration of the assertion to be conclusive.

Briefly, the present building and switchboard facilities are sufficient for rendering service to 10,500 lines, but inasmuch as the territory served by this central office is developing rapidly and the number of subscribers is increasing steadily, the maximum capacity of the building and switchboard will soon be outgrown, and for any number whatever in excess of 10,500 lines additional room and switchboard will be necessary, involving the expenditure of about $47,000 for a new story to the present building and about $117,000 for a new switchboard.

The growth of the central Information Bureau in the Prospect central office is another illustration of increased expense without any revenue whatever, as a result of the increase in the number of subscribers.

Since the commodity which the company sells is service, however, the facts and figures herein presented are the best possible evidence that could be given of its intention to sell the best possible service as widely and satisfactorily as it can possibly do it.

There is another fact equally true, and that is, the greater the number of subscribers the more valuable the service is to each and every one of them.

Important Notice

ABOUT five months ago a cable gang was transferred from one section to another in the same division. Recently one of the men was talking to an employee in another department who made reference to an article which appeared in this magazine. The cable man is reported to have said, "Why, is *The* TELEPHONE REVIEW still being published? I haven't seen one since we were transferred."

The fault was not his, of course, nor was it ours.

Such transfers as this, the consolidation of offices affecting small or large numbers of employees, the opening of new offices, and other organization changes are constantly occurring. We are absolutely dependent upon the heads of the departments concerned, for information regarding these changes.

Every employee of the company is supposed to be furnished with a copy of *The* TELEPHONE REVIEW each month. Our mailing and shipping list is based solely upon information furnished us as to the number of employees in each department at each address where they are located, or where they report.

Deliveries this month furnish an exact guide as to the latest information we have for forwarding the magazine. Any offices receiving more than they require, or an insufficient number, or none, are requested to notify us immediately so that our list may be corrected at once.

How Important is Your Job?

EVERY boy has read "Gulliver's Travels," and probably most girls have done so. If not, they ought to read it at once, no matter how old they have gotten to be.

In this book, which is really a satire, Swift describes one country visited by Gulliver in which there were two conflicting schools of taxation. One professor proposed to levy on vice and folly, the rating to be fixed by the citizens' neighbors; another, to tax estimable qualities, such as wit and valor, upon the possessor's own valuation.

Times probably have not changed so much since Swift wrote his book but that this system, if it could be adopted, would make all other forms of taxation unnecessary.

Be that as it may, the story has its application in business to-day for those whose judgment of others and esteem of themselves are "out of plumb."

Digitized by Google

It is often of least importance what others may think of the man, and of little importance what a man may think of himself, but it is always of first importance what a man thinks of his job.

As a matter of fact, by working backwards, what a man thinks of his job often determines what he thinks of himself and what others think of him.

An official of this company gained instant recognition when, late one afternoon, he approached his superior with a number of papers requiring attention. His superior was very busy and said: "See me to-morrow about these matters. I am too busy to-day." The young man replied: "I should not have brought them to you to-day if they could wait until to-morrow."

It was this young man's estimate of his job which won the recognition of himself by his superior.

The job, therefore, is the thing, because it consists of carrying forward pieces of the work which constitute the business of the company, just as the revolutions of a wheel carry forward a loaded vehicle to its destination. The process is continuous, and the speed and accuracy with which the work is done constitute the rule by which the importance of the man on the job is measured.

It is strange how much more interest some people take in their diversions than in their work. This is merely a lack of appreciation of the relative importance of work and diversion. Diversions are just as necessary as work is, and it is possible to work too hard as well as play too hard. No one can accomplish his best by keeping his nose "too close to the grindstone."

The valleys and foothills need to be crossed to reach the heights, but are not meant to be dwelt among by those who have pride and ambition.

OUR closing date is the 25th of each month for the next issue.

It would be of great assistance, however, if contributors would send in their material as soon as they have it ready.

Are YOU a contributor?

You have only to write the Editor, 15 Dey St., New York.

We want to hear PERSONALLY from every one of our fellow employees.

What's on YOUR mind?

The Telephone to the Rescue

ANYONE who visits a Life Saving Station for the first time is apt to be disappointed. All there is to see is a small building just large enough to house a few boats, a four-wheel truck, boxes, life-preservers (as you would probably call them), some rope, and a few other things that look innocent enough, and in addition to this a few men that seem to have little or nothing to do, except to be extremely courteous to occasional visitors.

If you remain long enough you may witness a drill, but even that does not arouse in you much enthusiasm, and you go away thinking, perhaps, that your trip to such an out-of-the-way place hardly repaid you, except for the sake of saying that you had been there.

"Those men have an easy time," is probably the way they impress you.

You notice that they have a telephone, too, and wonder why with so much time hanging on their hands they don't call up somebody and have a chat.

It is only when you read accounts of their marvelous heroism, almost unconquerable endurance and thrilling rescues—and, alas, occasionally of the tragic death of a man or a crew in a noble effort to save life or property—it is only then that you begin to realize the significance of their calling—life-saving—and to understand these brave men with stout hearts and strong muscles who, when the times for action come, respond instantly to the call of distress, night and day, from those who are in peril of the sea.

On our cover this month we have pictured the lookout tower of a life-saving station, with the keeper in the act of telephoning a distant station for assistance in saving a disabled ship which is signaling for help. There is nothing fanciful about this picture.

A Perilous Rescue

The records of the United States Life-Saving Service are full of the most dramatic instances of this kind. One of those recorded in the annual report for 1912 describes the part performed by the crews of the life-saving service at the wreck of the Merchants & Miners' 3,000-ton steamer *Ontario*, which caught fire and was beached near Montauk Point, N. Y., last year, to save the lives of seventy or more persons on board.

The stations at Watch Hill, R. I., and Montauk, N. Y., were notified by telephone that the vessel was sending up rockets and both put out simultaneously about 3:15 a. m. to the rescue. The life-savers from Montauk were the first to arrive, and on the beach, abreast of the disabled steamer, they rigged up the breeches buoy apparatus. The life-savers from Watch Hill had a perilous trip through seas which broke over them almost continuously, and upon arrival they found that the distance between the vessel and the shore was about 700 feet.

The thirty-two passengers and their baggage and the crew were taken off by 9.30 a. m. Then the life-savers tackled the fire, the heat from which was so intense that the nozzles of the hose would occasionally be burned off.

Breeches Buoy and Telephone Both Life Savers

The breeches buoy as a means of saving life is usually efficient when the weather and the sea make it impossible for the life-savers to reach a wreck and everything else fails. The buoy travels back and forth upon a hawser—"an aerial trolley line which carries over the angry sea what cannot be carried through it."

The telephone is like the breeches buoy, at least in this, that both bridge distance and establish communication back and forth. Like the breeches buoy, too, the telephone is often the means of saving life.

The rescue from the wreck of the *Ontario* is related only because it occurred within our territory, and is but typical of others that have happened and such as may happen at any time at any of the nearly 300 stations in the United States Life-Saving Service which covers nearly 10,000 miles of coast.

The following instances of the value of the telephone in emergency are such as may occur at any time at any of the nearly 8,000,000 telephone stations in the Bell System in the United States:

"Get a Doctor!"

On September 18, between 2 and 3 a. m., Miss Seaman, who was operating alone in the Freeport Central Office at the time, answered a signal from the Power House telephone, and the calling party said: "Get a doctor!"

From the excited manner in which the request was made, together with the fact that a single blast was blown

Digitized by Google

on the Power House whistle a few minutes later, Miss Seaman realized that an accident must have happened, and she immediately attempted to get a physician to render whatever assistance might be necessary. She called in succession seven physicians, the first six of whom refused to respond because of the lateness of the hour. The seventh hastened to the Power House, where he found that the Assistant Engineer had been killed and that the Chief Engineer, the only other person in the place, had been badly shocked and was unconscious. The Chief Engineer has no recollection of his actions after being injured, but it is supposed that he had strength and forethought enough to go to the telephone and call for a doctor, and then pull the whistle cord, before he lost consciousness.

His life was saved by the prompt medical attention which he received through the quick and intelligent action of Miss Seaman. Miss Seaman's assistance at the switchboard was so much appreciated, that the Freeport Fire Council tendered her a vote of thanks and sent her the following letter:

FREEPORT FIRE DEPARTMENT.

Freeport, N. Y., Sept. 22, 1913.

Miss Mildred Seaman,

Bedell St., Freeport, N. Y.

Dear Madam:

I am directed by a resolution of the Freeport Fire Council to say that at their meeting on the evening of Sept. 19, 1913, a vote of thanks was tendered to you in recognition of your excellent service to the Fire Department on the morning of Sept. 18, 1913.

Yours respectfully,
(Signed) C. O. NILES,
Sec.

"Fire!"

The other instance referred to occurred in Newark, N. J. On September 23, about 1.20 p. m., Miss A. Keavny, an "A" operator in Branch Brook, answered a call and heard a lady say, "Fire!"

As the call came from a party line and no letter was given by the subscriber, Miss Keavny referred the matter to her supervisor, Miss M. Byrne, who immediately rang back the different parties on the line and located the lady who had sent in the call. While doing this, Miss Byrne also had the fire headquarters in readiness to start for the fire as soon as the location was ascertained from "Information."

Later the lady called in to express her thanks for the attention given her. She said that she and her sister were so excited that they did not know what to do, but through the assistance rendered them the engines arrived in time to confine the fire to the cellar and save their home from destruction.

The Telephone Society of N. Y.

Main Section

THE 146th meeting will be held Tuesday, October 21, 1913. The paper at this meeting will be: "The Western Electric Company's Place in the Bell System," by Mr. Gerard Swope, Vice-President, Western Electric Company.

This subject formed the basis for a paper and an extended conference held in the early part of this year between the officials of the Western Electric Company and the officials of the various associated companies.

As the reasons for the close and cordial relations that have grown up with the Western Electric Company within the recent past may not be clear to all members, the officers of the society believe that a subject of such importance will be of great interest.

The paper will be discussed by Messrs. Thayer, Thurber, Dubois and Gherardi, all of whom took part in the original conference.

Central Section

THE plans of the Central Section for the winter contemplate a program made up largely of papers by Central Division employees on the every day work of the Division. The Section hopes to supplement these papers with several talks by out of town officials.

The Executive Committee of the Central Section sees the desirablity of making the programs consist of more than the formal reading and discussion of papers, and special committees are endeavoring to prepare novelty features, including music.

The Central Section plans also to establish District Organizations, so that the more distant members of the Society may have meetings nearer home. The Utica and Binghamton-Elmira Districts are both included in the plan.

The first meeting of the Section is planned for October 21.

Organization Changes

WESTERN DIVISION

Commercial Department

A. M. Forster, Salesman, Buffalo, appointed Local Manager, Batavia, vice F. B. Preston, reporting to District Manager, Buffalo.

WESTCHESTER DIVISION

Commercial Department

C. E. Fenker, Chief Clerk of New Rochelle, transferred to Directory Department.

LONG ISLAND DIVISION

Plant Department

A. F. Seaman has resumed his duties as Wire Chief of Prospect.

J. L. Pitcher, Wire Chief of Prospect, transferred to Flatbush. He will still act as Wire Chief of Bedford in a supervising capacity.

F. C. Condon, Wire Chief of Flatbush, will temporarily take up special work for the District Inspector.

HUDSON DIVISION

Commercial Department

B. B. Lloyd, Resident Agent, Amenia, changed to Salesman at Poughkeepsie.

Traffic Department

R. K. Allerton appointed District Traffic Chief of Central District, vice R. S. Williams, who is transferred to the Traffic Engineer's Office, New York City.

CLAVERACK, N. Y.

On September 9, 1913, a new central office was opened at Claverack, N. Y., a locality formerly served by Hudson. It will be operated by an agent, Wilkinson Haskins.

NEW JERSEY DIVISION

Plant Department

Chester N. Weems, formerly Engineer, appointed Division Equipment Engineer, New Jersey Division.

Arthur G. Simons, formerly Division Equipment Engineer, appointed Engineer and transferred to Engineering Department, New York.

Albert Washington, formerly deskman, Englewood, appointed Acting Wire Chief, Englewood, Paterson District.

Mr. Greer on "Salesmanship"

"SYSTEM" for October contains an article on Salesmanship, by the former Metropolitan Manager of the New York Telephone Company and the present General Commercial Superintendent of the Chesapeake & Potomac Telephone Company, Mr. S. M. Greer.

Mr. Greer has entitled his paper, "Common Sense in Salesmanship." He does not believe that high-flown theory, psychological buncombe and "ginger letters" can ever take the place of knowledge of the goods, knowledge of human nature, enthusiasm and hard work. He is, however, strongly in favor of the training of salesmen, of systematic selling methods, and of carefully planned selling campaigns. To quote *System:* "Far from decrying the value of enthusiasm or efforts to inspire it in a sales force, he tells of the things that build enthusiasm and protests only against the sales policies and methods which promise but always fail to produce permanent results."

Our readers, particularly those in the Commercial Department, will find much information and inspiration in Mr. Greer's article, and we commend it to their attention.

Digitized by Google

Amsterdam

By A. J. Campbell, Local Manager, and Miss B. S. Vought, Chief Operator

MABIE HOUSE, ROTTERDAM, N. Y.—THE OLDEST HOUSE IN THE MOHAWK VALLEY.—BUILT IN 1680.

THE City of Amsterdam is situated on the Mohawk River, thirty-three miles west of Albany. The site is ideal, and the view up and down the Mohawk Valley is one of surpassing beauty. It is traversed by the New York Central and West Shore Railroads and by the Erie and Barge Canals.

Early History

As early as 1688 Adam Vrooman, a settler of Schenectady, was granted an Indian title for twenty-four acres of land and forty acres of adjoining woodland on the south side of the Mohawk River. This grant later comprised the village of Port Jackson and is the present fifth ward of the city. History mentions no attempt, however, to settle in this vicinity until 1716, when Philip Groat, a member of one of the Dutch families that had settled at Rotterdam, made a purchase of land near Cranesville, three miles east of Amsterdam, and was probably the first white man to settle on the north side of the Mohawk, in the Township of Amsterdam.

Named Amsterdam in 1808

In 1785 a grist mill was built near the mouth of the Chuctanunda Creek by Albert Vedder. Soon afterwards a sawmill was erected, a blacksmith shop, a few dwellings and finally in 1800 a church. This hamlet was named Veddersburg. On April 5, 1808, a town meeting was held at the residence of Mr. James Allen (on what is now a part of the Hurricana Stock Farm, owned by Hon. John Sanford), and the question of changing the name from Veddersburg to Amsterdam was submitted to a vote which resulted in a tie. "James Allen, being president of the meeting, had a casting vote, and out of modest courtesy to the Dutch element decided upon the name Amsterdam."

Historic Buildings

Amsterdam and vicinity boast of many historic buildings, most of them having been built before the Revolution. At Rotterdam, about nine miles east of Amsterdam, is the Jan Mabie House built in 1680. This is the oldest house in the Mohawk Valley and is situated on a bluff on the edge of the Mohawk commanding a view of the river for many miles in either direction. It is built of stone with a steep roof, which gives it the appearance of being one story on its sides and two stories and an attic on its gable front.

Another old building of particular importance, on account of its connection with the first Episcopal church in the Mohawk Valley, is Queen Anne's Parsonage at Fort Hunter, a short distance west of Amsterdam. This was built in 1712 and occupied by the various missionaries from the time of erection until 1774. During the Revolution and for many years following St. Anne's Chapel had no resident missionary, and the parsonage was vacant. In 1820 the chapel was demolished to give place to the Erie Canal, but as late as 1877 the manse was still standing but showing some signs of decay. In 1888 it was repaired by DeWitt Devendorf and is now in a good state of preservation.

The oldest historic building within the present boundary lines of Amsterdam is Guy Park mansion built in 1766 by Sir William Johnson for his nephew, Lieutenant Guy Johnson. At the death of Sir William, in 1774, Lieutenant Guy Johnson was made commissioner of the Indians, but left for Canada in 1779. Guy Park mansion was then occupied by Henry Kennedy and changed owners several times until in 1845 it was purchased and remodelled by James Stewart and afterward sold to the State for Barge Canal purposes.

Fort Johnson Mansion

Perhaps the Fort Johnson mansion in the village of Fort Johnson, formerly known as Akin, about one mile west of Amsterdam, is the best known of the Colonial houses in this section. Built in 1743 by Sir William Johnson, it was the scene of many conferences with the Iroquois, as the owner gained the confidence of the Indians by his kind and honorable treatment of them. He was made superintendent of the Indians and in 1746 was made a chief

AN OLD COLONIAL MANSION, GUY PARK, AMSTERDAM.—1766.

Digitized by Google

MAGNETO BOARD THAT GAVE 200 AMSTERDAM SUBSCRIBERS SERVICE IN 1897.

of the Mohawks. During the period of his residence in this section the colonists were at peace with the Five Nations and it was not he, but Sir John Johnson, his son, and Colonel Guy Johnson, his nephew and the founder of Guy Park, who were later responsible for many outbreaks of the Indians.

In 1763 Sir William Johnson went to live at Johnstown, and Sir John Johnson took possession of the mansion at the fort, but was later obliged to escape to Canada. The property changed hands several times between 1800 and 1844, when it was purchased by Dr. Oliver Davidson and subsequently sold to Almarin Young who later sold it to Ethan Akin. In 1905 it was purchased from the Ethan Akin Estate by Major-General J. Watts De-Peyster and presented to the Montgomery County Historical Society. The interior and exterior are now practically the same as when vacated by Sir John Johnson. It contains many articles of historic interest, including the celebrated Richmond collection of aboriginal relics presented by Hon. Stephen Sanford.

Amsterdam To-day

In 1813 the village of Amsterdam contained a church, a schoolhouse, twenty-five dwellings and about 150 inhabitants. In 1825 it had increased to forty-five dwellings, a scythe factory, six stores, a printing office, a schoolhouse and a church, with a population of 300 inhabitants. It was incorporated in 1830 and in 1854 was granted a village charter which conferred greater powers on "the board of trustees." During and after the Civil War, the village increased rapidly, the growth being so great that the simple form of village government was found entirely inadequate for about 12,000 inhabitants, so a city charter was obtained on April 16, 1885. In 1888 the village of Port Jackson on the south side of the Mohawk was annexed, and in 1904 the village of Rockton was added to the northern boundary. The city now covers five and one-half square miles and has a population of about 33,000. There are fifty miles of sidewalks, ten miles of paved street, fifty miles of gas mains, two electric light plants and fifteen miles of electric railroad. It has twenty-one churches, five hotels, two daily papers, an immense jobbing trade, a free library, a new Federal building, several theatres, a Home for Elderly Women, Children's Home and several fraternal organizations.

Many Industries in Amsterdam

"Success is Yours in Amsterdam" is our slogan, and for the benefit of those who may have regarded the city as one of minor importance the following facts may be of interest:

It has three national banks, one savings bank and a trust company. It is the first city in the United States in the manufacture of carpets and rugs, having three mills, giving employment to 5,000 hands, whose annual output is 12,250,000 yards or 6,690 miles. Two silk mills have a yearly output valued at $1,500,000 and turn out 460,000 pairs of gloves, and nine broom manufacturing plants turn out more brooms than any other city in the world, having a yearly output worth $1,750,000. Amsterdam is the second city in the United States in the manufacture of knit goods, with over thirty

N. Y. TELEPHONE CO.'S CENTRAL OFFICE AT AMSTERDAM, N. Y.

Digitized by Google

knitting mills, giving employment to 6,000 hands, and an annual output of over $10,000,000 value. It is the first city in the manufacture of mesh underwear and has the largest pearl button factory in the world, with an output valued at $1,500,000 annually. It has a linseed oil mill which consumes over 1,000,000 bushels of flaxseed annually and entails the expenditure of about $2,500,000, using nearly 50,000 barrels per year for the shipment of these oils, and one brick yard whose annual output is 3,000,000.

There are several other important industries, such as paper mills, needle manufactories, machine shops, planing mills, button machine factories, dyeing works, spring shops, paper box factories and boiler shops, making a total of 90 establishments which have a yearly output equal to about $30,000,000. A. J. C.

Telephone History

The telephone business started in Amsterdam 32 years ago, the Amsterdam Telephone & Telegraph Company having 25 subscribers.

The accompanying illustrations show the magneto board that served 200 subscribers in 1897 in a building at the corner of Church and East Main Streets. At that time two young ladies acted as day operators and a young man as night operator. The former also filled the capacities of cashier and pay station attendants.

There were few telephone booths about the city then, and the central office was the main center for patrons who either had no telephone or no long distance instrument. Many telephones had the old Blake transmitter at that time.

It is unnecessary to state that very extensive telephone work has been done in this city in 16 years. In 1897 the toll outward and inward business amounted to about 250 tickets a day; at present the outward business alone averages about 300 tickets daily. In 1903 the Hudson River Telephone Company which then owned the business moved the office to its present location. In 1910 the New York Telephone Company bought out this company, and in 1911 purchased another local company, taking over about 1,300 subscribers.

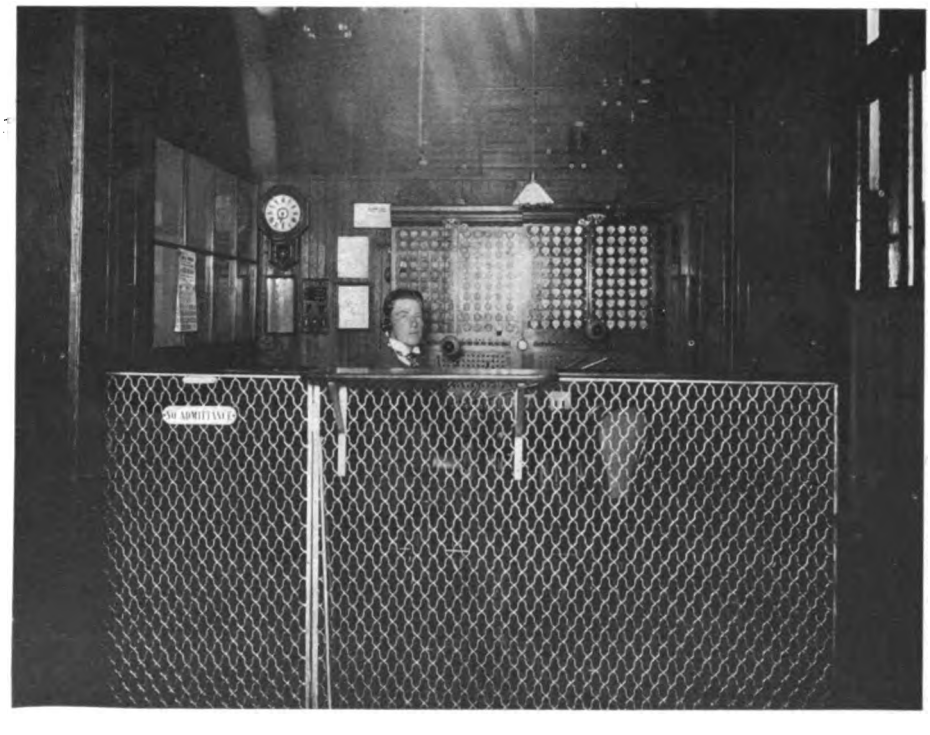
A modern common battery board now serves approximately 3,300 subscribers which is nearly a 10% development. On February 1, 1912, a joint New York Telephone-Western Union Telegraph office was established, and the large increase in the telegraph business denotes its popularity in Amsterdam. B. S. V.

Englewood, N. J.

By H. Bell, Local Commercial Manager

ENGLEWOOD, New Jersey, which enjoys the distinction of being the only municipality in Bergen County, became a city in March, 1896, with a population of approximately 5,500. Aptly called "the City of Beautiful Homes," any industrial development is strictly tabooed, as it is the natural desire to preserve the amenity of the place as a residential resort.

Englewood and vicinity are full of historical associations. Among them are the Liberty Pole Tavern, which antedated the Revolution and was one of the numerous Washington headquarters, and the first railway depot in Englewood (1859). The first map of Englewood, filed in 1858, shows but three houses. A tax on a house and lot then would hardly pay a dog tax to-day. There are now within the confines of the city 1,800 buildings, with an assessed value of over eleven and one-half millions.



ENGLEWOOD, N. J., SWITCHBOARD OF 1882.

The New York and New Jersey Telephone Company established the first telephone exchange in Englewood in 1882. It was located in the Christopher Building at the northwest corner of Palisade Avenue and Dean Street. There were about twenty-five subscribers; the type of switchboard was the "Williams," and four trunk or toll lines radiated to Nyack, N. Y., Jersey City, Hackensack and Leonia. Oddly enough, when the present Central Office had to be evacuated in March, 1911, as the result of fire, temporary quarters were secured at the southwest corner of Palisade Avenue and Dean Street within a stone's throw of the building where the first exchange saw the light.

The first day operator was Miss Jessie Van Riper, whose stay with the Company was, however, only about two months. Her successor was Miss Gessner, now Mrs. Frank Hazenbarth, of Morris Heights, N. Y., who remained in charge of the exchange until 1888. Miss Wallace followed Miss Gessner, until she also joined the matrimonial ranks, as Mrs. Tate of Closter, New Jersey.

The photographs of the old switchboard and of those now in use afford

Digitized by Google

ENGLEWOOD COMMERCIAL STAFF. JOINT NO. 10-A OFFICE.

WIRE CHIEF'S STAFF, ENGLEWOOD.

SUPERVISING FOREMAN'S STAFF, ENGLEWOOD.

a graphic picture of the wonderful telephone development. The number of telephones in the city on September 1, 1913, was 1,600, and the estimated population 11,000. There are now certain sections of the city where the point of telephonic saturation has been reached, no occupied residence being without telephone service.

Prior to June, 1910, when a local Commercial Office was opened at 12 Engle Street, the Englewood district was managed from Hackensack. Owing, however, to the rapid growth, a larger office, which is a joint telephone and telegraph, Class 10A, was opened in February, 1912, at 22 Engle Street.

ENGLEWOOD EXCHANGE OPERATING STAFF.

From the establishment of the local commercial office in June, 1910, to June, 1913, a period of 3 years, the percentage of increase of lines and stations for the Englewood district was 80 per cent and 68 per cent respectively.

It is interesting to note that in the territory covered by the Englewood Central Office area, which includes in addition to the city of Englewood, Tenafly, Cresskill, part of Teaneck, and Englewood Cliffs, there are about 2,800 buildings (the term buildings may be regarded as synonomous with houses) and of that number, more than 50 per cent have telephone service.

An Effective Advertisement

THE float shown in the accompanying illustration is an idea of the Allegany County Telephone Company, and as a medium for advertising has proven a great attraction. The bell is 5½ feet in height, 19 feet in circumference. It was in an Industrial Parade at Belfast, N. Y., on July 15, where it was first used. It was then shipped to Bolivar, N. Y., and used in the parade of the Western New York Five County Firemen's Association on July 25. Its position was in the center of the parade where it attracted very much attention and was the talk of the thousands of people present.

The bell was then shipped to Wellsville, N. Y., where it was placed in the center of the grand stand of the Wellsville Fair Association during their fair, August 19 to 22, inclusive. Illuminated with red electric lights at the evening performance it was the admiration of many thousands of people. The bell was then shipped to Cuba, N. Y., and again placed in the center of the grandstand, by request of the Secretary of the Cuba Fair Association, who greatly admired it, after seeing how much it was spoken of and admired at the Wellsville Fair. It is an exact copy of the "Blue Bell" paper weight. The Allegany County Telephone Company feel that the money invested for this advertising has been well repaid.

W. J. WELDNER,
General Contract Agent,
Wellsville, N. Y.

TELEPHONE FLOAT IN PARADE AT BOLIVAR, N. Y.—ALLEGANY COUNTY TELEPHONE CO.

Digitized by Google

Telephone Exhibits at the Fairs

THERE are three things that are uppermost in the average American person's mind as the summer days fade into fall. They are: The Opening of School, the bug-a-boo of the American boy; the County Fairs, looked forward to by many of us as the Event of events, and the World's Series of Baseball, that lets loose the intense enthusiasm stored up for months when the Umpire announces the batteries for the day's game. During the month of September many fairs have taken place, and in the downstate territory there were five held in which the New York Telephone Company's booths were most conspicuous.

Staten Island Fair

The annual fair of the Staten Island Fair Association, reorganized and under a new management, was held from August 27 to September 2, inclusive, on the fair grounds, Dongan Hills, S. I., and was attended by about 70,000 people.

The New York Telephone Company's display space, prettily decorated and well stocked with fans and advertising literature and various types of telephone equipment, was located at the front entrance in the main exhibition building, which was one of the most prominent locations on the grounds. Three telephone booths equipped with 50-A coin sets were also furnished to serve public telephone requirements, and these were well patronized.

Our display as well as our attention to the public received the general approbation and commendation of all. Advertising literature was passed out to spectators and brought about numerous questions regarding rates and classes of telephone service, and as a result two direct-line contracts, two 4-party line contracts, and a number of good prospects were secured, thus showing the display to have been a good one from a commercial standpoint.

BOOTH AND EXHIBIT AT STATEN ISLAND FAIR.

Monmouth County Fair

Following our usual custom, the New York Telephone Company exhibited at the Monmouth County fair held at Red Bank, N. J., August 28 to September 1, inclusive. The feature of our exhibit was a large balance scale which denoted the value of the telephone as compared with all modern means of travel. A telephone desk set was placed in one tray which overbalanced the other tray that carried a train of cars, trolley car, automobile and an air-ship.

It was generally conceded that our exhibit was the best in the main exhibition tent. A blue ribbon and diploma were awarded to the New York Telephone Company for its exhibit. Similar award has been made to the Company for the last two years.

The secretary of the fair estimates that approximately 30,000 people visited the fair grounds during the fair days.

Orangeburg Fair

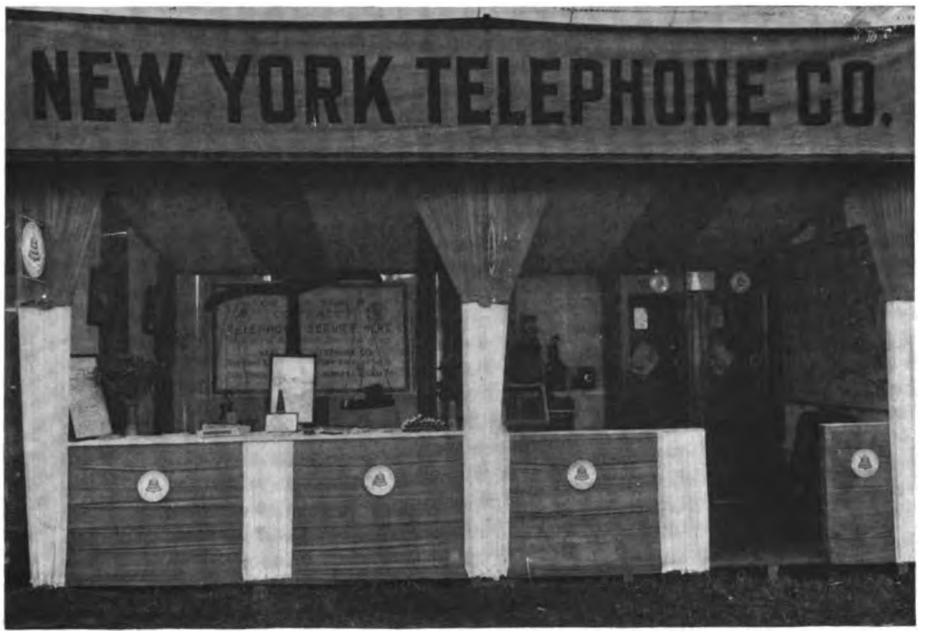
At the Rockland County fair, which was held at Orangeburg, N. Y., September 1 to 5, inclusive, the New York Telephone Company had an exhibit that attracted much attention. One of the features of the display was the exhibition of four bouquets made from telephone cable.

The use of the public telephones was considerably increased by a special sign reading "Public Telephone Booths," with a red arrow pointing across the center in the direction of the nearest booth. About 50 of these signs were tacked up at different points on the grounds. The total attendance at the fair during the five days was 48,000, or an average of 9,600 each day.

Suffolk County Fair

The Suffolk County Agricultural Society held its 62nd annual fair at its

Digitized by Google



BOOTH AND EXHIBIT AT MONMOUTH COUNTY FAIR, RED BANK.

fair grounds, Riverhead, L. I., September 16 to September 20, inclusive, and although they had two very stormy days it was considered a success. Some 27,000 people visited the fair grounds during the five days of the fair.

The Telephone Company's booth was very favorably commented upon by the visitors at the fair and also the newspapers. An opportunity was presented for speaking to about 50 people who had been carded as prospects. From them 2 contracts were secured and it is expected in the near future a number of additional contracts will result.

White Plains Fair

At the White Plains, N. Y., Fair and Horse Show held at the fair grounds September 17 to 20, inclusive, the space occupied by the New York Telephone Company was quite large and gave opportunity for a very attractive telephone exhibit.

The general scheme of the scales containing the telephone and other means of travel were utilized in this exhibit. Telephone facilities were placed both at the New York Telephone Company's booth and also in the main entrance to the grand stand. Placards specially prepared, indicating by means of a red arrow and the words "Public Telephone Booth" were conspicuously placed, and so arranged that they indicated the nearest public telephone available. These placards have caused considerable increase in revenue.

Mineola Fair

The Mineola Fair was held under the auspices of the Agricultural Society of Queens and Nassau Counties from September 23 to 27, inclusive. The Telephone Company's booth was located outside the main entrance of Horticultural Hall and the booth was larger than that of last year.

BOOTH AND EXHIBIT AT ORANGEBURG FAIR

BOOTH AND EXHIBIT AT MINEOLA FAIR, L. I.

That our exhibit was well patronized is shown by the fact that the receipts from the coin box booths amount to double that of any other fair held this fall.

The accompanying illustrations give an idea of their appearance.

While only a few direct results have been traced to the above exhibits, they have been well worth while in that our Local Managers have had an excellent opportunity to get in closer touch with the public and with the subscribers in their respective dis-

Digitized by Google

tricts, and also an opportunity was provided for them to make a more careful distribution of our advertising literature.

Moreover it has been the means of keeping the name of the Company before the public in these districts, thereby obtaining the greater good will and friendship not only of the management of the fairs but also of the thousands of patrons and visitors. This applies equally to other exhibits.

TENT AND EXHIBIT AT ERIE COUNTY FAIR, HAMBURG.

Furnishing Telephone Service in Connection with the New York State Fair

EACH year, during the second week in September, the New York State Fair is held at Syracuse, and the city is a scene of bustling activity. The various business enterprises increase their facilities to care for the additional trade and to advertise their wares. Among them is the New York Telephone Company; each year the Plant Department is called upon to supply additional equipment to handle the increase in traffic and to furnish temporary service at the Fair Grounds. A brief outline of the work necessary to provide additional telephone facilities for the 1913 Fair might be of interest to the readers of *The* TELEPHONE REVIEW.

Not only was it necessary to provide temporary service at the Fair Grounds, but additional information facilities were required at the Warren Central Office and extra equipment at some of the hotels. At the Fair Grounds, on account of the high calling rate and the fact that most of the extension lines were handled on the Coin Collector basis, a four-position multiple switchboard of 100 lines and 30 trunks was remodeled in the Syracuse Repair Shop. The cord and line circuits were rewired to provide a standard No. 1 arrangement. A combination relay and coil rack, a combined Main and Intermediate Distributing Frame and fuse panel were provided. Both ends of the multiple and answering jack cables were soldered in before the switchboard left the Syracuse Repair Shop, it only being necessary at the time of installation to run the miscellaneous wiring.

N. Y. TELEPHONE CO.'S TENT AND EXHIBIT AT MONROE COUNTY (N. Y.) FAIR.

We were assigned quarters in the Liberal Arts building, which consisted of three rooms suitable for a Public Pay Station, Operating Room and Terminal Room. The quarters were refinished and the board was installed in approximately ten days. As this board is located about three miles from the Main Office and no open wire trunks or spare cable pairs being available, it was necessary to install a complete power plant which consisted of No. 5-D portable storage batteries and a mercury arc rectifier placed in the Terminal Room. Ringing current was obtained from pole changers and dry batteries installed in a suitable battery cabinet. Twenty trunks were connected to the Warren "A" board and five to the Syracuse toll board. Contracts were secured for a total of 72 stations. The installation was completed and service furnished four days prior to the opening of the Fair, a Wire Chief and Troublemen being in attendance at all times. The Traffic Department gave a full twenty-four-hour service.

At the Onondaga Hotel two 40-line P.B.X. boards and ten additional booths were placed. At the Yates Hotel five additional trunks and two extra booths were provided, and additional booths were also placed in some of the smaller hotels.

As it was thought that the information equipment at the Warren Exchange might possibly be inadequate, a single position P.B.X. board was placed adjacent to the present Information Desk and additional lines wired to it.

It has been the custom to remove the equipment from the Fair Grounds each year, as the Telephone Company has been unable to obtain permanent space, but this year the Commission

Digitized by Google

has agreed to let us use the same quarters next year and we are leaving the equipment intact, removing the storage batteries and ringing equipment, and, to guard against moisture, the switchboard, relay and terminal equipment have been entirely enclosed and the case covered with tar paper.

E. A. CONEY,
Div. Equipment Engineering Dept.
Central Division.

Telephone Service an Important Item at Fairs in Western Division

THE recent Fairs in the Western Division all resulted in more or less direct benefit to the Company and, in a measure, indicate how indispensable telephone service is, no matter what the occasion may be.

Hamburg

Beginning with the week of August 25 at Hamburg, the following account serves as an illustration of our activity at these gatherings of the farmer folk.

Our tent was located at a central point on the grounds, adjoining the grand stand, and at a point where all people coming upon the grounds would pass on their way to the main attractions. The tent was 12 by 12 feet and served as a shelter for two receding door booths containing direct line automatic service. The display device was also given space here and afforded a constant attraction to the passersby. This served as a talking feature in explaining to all the construction of the ordinary talking circuit from the subscriber's station through the Exchange and back to another subscriber's station.

Posters and cards displayed in frames formed the main feature of the interior decorations, and large painted signs attached to the outside of the tent served very well to let the people know that there was a Bell Public Telephone within the grounds for their convenience.

Owing to the inclemency of the weather, the attendance was far below the average this year. Notwithstanding this, however, some 20,000 pieces of advertising matter were distributed.

Summarizing the benefits accruing to the Company from the Fair, it must be borne in mind that subscribers were interviewed who came from all over Western New York, but more particularly, however, from Erie County. We were able to advertise and boost Bell Service in a very general country-wide manner. Rates were quoted not only for rural sections but for the City of Buffalo as well. As a result of these interviews, new contracts for subscribers in the Hamburg district were taken at the Fair grounds, in addition to securing numerous prospects.

TENT AND EXHIBIT AT FAIR AT ALBION, N. Y.

The value of the service was demonstrated in a tragic manner on Thursday, August 28, when one of the aeronauts was killed in making a parachute drop for the amusement of the crowds at the Fair. As quickly as details of the disaster could be gathered, the newspaper correspondents rushed to the Bell Telephone tent to report to the offices of their respective papers. Naturally, with the aid of the telephone service, the news was spread broadcast within a very short time after the disaster.

Monroe County Fair

Following the Hamburg Fair the Monroe County Fair was held, from September 1 to 6.

The tent was located just inside the main entrance to the grounds, so that it was necessary for practically everyone attending the Fair to pass our exhibit twice.

As shown in the illustration, the display device was given a prominent position, as well as a framed picture showing the Rochester Traffic school for operators and the framed series of illustrated postal cards. In addition there was on exhibition a large map of the village of Brockport which showed by means of colored tacks the exact location of every Bell Telephone. In front of the tent a large blue bell constructed at the Local Office was placed so as to be seen from most points on the grounds.

About 20,000 pieces of advertising literature of different description were passed out to visitors, and facilities were provided so that people could send out postal cards to their friends. The total attendance during the week approximated 35,000.

Coin box public telephones were provided for the use of the public.

Many favorable comments upon our exhibit and service were received, as well as several very fair prospects.

Albion

This Fair was followed by another at Albion from September 10 to 13, and owing to the location, most of the equipment used at Brockport was sent to Albion. The location here was near the main entrance and close to the band stand where the crowds congregated.

Over 11,500 pieces of advertising matter were distributed, and one contract was signed.

The officers of the Orleans County Agriculture Society and the public generally expressed themselves as greatly pleased at our efforts.

Social and Efficiency Club Organized in Buffalo

ON September 22 a meeting was held in Buffalo by the Plant force consisting of District Foreman H. A. Knoll, Wire Chiefs and Insidemen, for the purpose of forming a club so as to enable the different employees in the Maintenance Department to become better acquainted and bring up different topics for discussion and better understanding. The following officers were elected for the term of one year: M. F. Glaser, President; W. L. Hamilton, Vice-President; E. M. Guillaume, Secretary. Meetings will be held on the first and third Wednesdays of each month.

Digitized by Google

CENTRAL DIVISION REVENUE ACCOUNTING PICNIC AT LONG BRANCH, N. Y.

The First Picnic of the Revenue Accounting Department, Central Division

DID you ever hear of Walter Peet? He is one of those fellows who come to the front every year trying to start something. Oh, not a scrap, but just something to give somebody a good time. Usually it is a baseball team with Walter, but this year it was a picnic. All said, "It can't be done," but he still thought it could.

You will find the answer in the picture which is reproduced here. Do you see any there who look as though they were not out for a good time? This isn't all of them either. Some who were unable to get over in the afternoon joined the party for supper and the evening.

Long Branch, the place chosen for the picnic, had been closed to the public the week before, so the place was ours to enjoy as we might. Special cars took us over at 2:30 P. M. on Saturday, September 13.

The afternoon went as afternoons at picnics usually do, thanks to a few outdoor enthusiasts who were willing to participate in the following athletic stunts.

The Automobile Race

It is not at every small picnic, in fact very few of the larger ones, that you are treated to the most excitable of sports, Automobile Races.

There were only two cars entered for this pastime, "Carrie" Anderson driving the "Midget" (child's auto), 1 mule power (G. W. Griffith), and "Mert" Gale in her "Bawl" car (child's perambulator) 1¾ mule power (a-la-Wilcox).

At the crack of the pistol it was seen that the "Midget" was in trouble, her driver having engine difficulty and not being able to get the desired "power," but on the second start both cars got away together.

As they came into the stretch, it was seen that the "Bawl Car" had thrown a shoe, not the car but the "power" (right foot, we think), but even with this handicap the "Bawl" owing to the superior pushing power, and better conditioned "Wind" was an easy winner. Time—(Too excited to catch it).

Ball Game

Talk about "speed on the paths," "double plays," "inside base ball," etc. Get two teams composed of girls, start the game and watch for results.

In the first place this game was for the championship of the office, Toll against Bookkeeping. (Marquis of Queensberry rules were used in some instances, each contestant being permitted one second or coach). It was hard to impress the players that it was not permissible to run from first to third and take first base with them, that they might not be called out, also that the same pitcher did not pitch for both "in" and "out." (Ask Miss Williams.)

Well, the game started with "Billie" Williams on the "rubber" and "Gwendolyn" Peet receiving for the bookkeepers. "Midge" Horner served the pellet and "Lillian" Wilcox was behind the timber for the Toll Division. Williams' "jump ball" was working to perfection (one attempt "jumping" over the back stop), and had her heavy-hitting opponents guessing, but after perusing the "routine," looking it up in the rate book, they discovered that on an average every other one "center checked" the home plate and they scored twice in the first inning.

Horner's waist (waste) ball was very good, the only way to countercheck the delivery being to bat left handed. This the bookkeepers discovered and after posting several "1916" to offset errors, settled down to "strike a balance." The game was called at the end of the second inning on account of battery and *wringing trouble*. (Western Electric please take notice).

Running Races

The foot races were run by departments, the distance being 50 yards, Miss Gale winning the bookkeeping race and Miss Havil the toll.

A good appetite was needed to do

Digitized by Google

justice to the "feed" which the young ladies had prepared for their guests. It wasn't one of those "picked-up-and-thrown-together kind of "feeds," but a real substantial layout that even the men could enjoy. Each table of twelve places had a chairman, who planned the menu for her own table. Another year there will, no doubt be many applications for places at Miss Bates' table, as there seemed to be special dessert served there (Miss Beal can tell you about the ingredients).

The time between the supper and the arrival of the orchestra was spent in the bowling alleys. Both young ladies and men went in for this sport, and the six alleys were kept busy.

The evening was certainly ideal for dancing, the company exclusive and the music and floor good. No wonder every one had a good time.

The success of the undertaking was largely due to the efforts of a General Committee, which consisted of Misses Mary Murphy, Charlotte Samuels, Mabel Peck, Edna Cholet, Maryfranc Marshall, May Williams and Messrs. L. A. Wilcox and Walter Peet.

N. Y. TELEPHONE ATHLETIC CLUB OUTING, COLLEGE POINT, L. I.

N. Y. T. A. C. Outing

DESPITE threatening weather, the good ship "Nassau" left Battery Park, Manhattan, at 12:30 P. M. on September 6, carrying a record-breaking crowd en route to Witzel's Grove, College Point, Long Island, where the New York Telephone Athletic Club held its annual field day.

By the time College Point was reached the picnic spirit of good-fellowship had permeated the entire party. The Blue Bell Orchestra led the march from the boat, and at the grove a group photograph was taken, after which the athletic contests were started without delay.

The nine events were hotly contested, owing to the keen rivalry between the several departments of the Company for athletic supremacy on the club's record books, and there were many fine performances.

After the games everyone adjourned to the dining-room, where a course dinner was served. The dancing pavilion then claimed the attention of all present, and J. E. Byrne, President of the club, distributed prizes worth over $100 to the winners of the respective events. A snake dance was executed by the club members, after which the evening was spent in general dancing.

The boat left College Point at 9 o'clock for the return trip, and when New York City was reached it was with reluctance that the party disbanded, after a vote of thanks to the committee for the Red-Letter day of sport and amusement.

W. A. Giblin was chairman of the committee in charge of the outing.

Summary of Athletic Events

12-lb. Shot Put—First, McDonald; second, Rohrig; third, Ruggerio. (All three broke the club record.)

100-Yard Dash—First, Arenholz; second, Edwards.

50-Yard Dash (for ladies)—First, Miss Meusel; second, Miss Quinn.

Half-Mile Run—First, Buist; second, McLaughlin.

100-Yard Dash (for fat men)—First, Duffy; second, Axtman.

100-Yard Three-Legged Race — First, Casey and Arenholz; second, Roy and Edwards.

Baseball Throwing Contest (for ladies) —First, Miss Eaton; second, Mrs. Blaha.

One and a Half Mile Run—First, Ruggerio; second, Buist.

Inter-Departmental Relay Race—First, Construction Force (DeMersma, McLaughlin, Casey and Arenholz); second, Station Inspection Force (Blessing, Steinback, Tuttle and Rohrig).

Baseball

The fall baseball season opened on September 13 with the following results: Installers, 7; Inspectors, 2; Plant Accounting, 6; Engineers, 5; Brooklyn Plant, 7; Plant Construction 2.

The scores on September 20 were: Inspectors, 2; Plant Construction, 1; Installation, 14; Engineers, 8; Plant Accounting, 13; Brooklyn Plant, 1.

Standing on September 20:

	W.	*L.*	*Per cent.*
Insp.	6	1	.857
Install.	6	2	.750
N. Y. Const.	4	3	.571
B'lyn Plant	4	3	.571
Engineers	5	5	.500
Plant Acc't.	3	4	.429
N. Y. Night Force	1	6	.142
Bldg. & Sup.	0	8	.000

Digitized by Google

OUTING OF BROOKLYN GARAGE EMPLOYEES, SEPT. 14, 1913.

Brooklyn Garage Outing

ON September 14, the annual outing of the Brooklyn Garage Employees was held at Rockaway Beach, and the boys of the Newark Garage attended for the first time.

Both athletic and aquatic games were indulged in. On land the feature game was a baseball contest between the Brooklyn and New Garage employees, which ended in a tie, 3 to 3, Edward Wilhelm playing a fast game and making it interesting with his lightning speed running around the bases.

After the ball game the committee announced that Steve Fox would give exhibitions in swimming and rowing. He was ably assisted by Mr. Felton and Vincent Gormly and the attraction drew a large crowd.

Teddy Haberstumph and a few others were missed, for awhile, when a telephone message was received that they were fishing on the pier and it was requested that the committee send a few of our husky men to help them bring in the catch.

After a hearty repast, singing and dancing were enjoyed, not to mention games of pinochle and the ancient game of Santor played on the beach, which resulted in soreness to many of the boys the following day, they not being used to such strenuous exercise.

The Hon. John Patrick Loftus was appointed toastmaster and he certainly proved capable as he brought his little hammer along with which he did a little knocking.

W. PRAY,
Brooklyn Garage.

Glen Telephone Co. Outing

THE men in the employ of the Glen Telephone Company held an employees' meeting and clam bake Saturday, August 30. A feature of the outing was the presence of men from St. Johnsville, Broadalbin, Northville, Fort Plain, Canajoharie, Glen and Fonda, so that all of the company's exchanges were represented.

First they assembled at the company's headquarters; there they were given a talk on "Resuscitation from Electric Shock," by Dr. E. F. Hagedorn, and remarks by President Edwards, Fred. Linus Carroll, the company's attorney, the manager, assistant manager and storekeeper.

The men then took a special car to Jamestown, where the repast was served at 3 o'clock. This was followed by athletic contests consisting of "a foot, peanut, pie and other races," and a game of baseball.

Meeting An Emergency

FORT Lafayette, situated about one thousand feet off Fort Hamilton between Bay Ridge and Staten Island, and used as a naval magazine, offers one of the best examples of the real worth of the telephone it has been my pleasure to observe.

Service is supplied from the Bay Ridge Exchange through the usual subway and aerial cables from which a twisted pair is run to the water's edge, connecting with a four pair single armored submarine cable terminating in the Chief Gunner's quarters on the island. From there a twisted pair is run to the instrument.

One of the uses of the fort is the storage of ammunition removed from fighting craft while in port; another is the loading of ships' magazines. In carrying on this work the use of the telephone becomes imperative. When orders are received at the navy yard for the sailing of certain ships, an officer, whose duty it is, telephones Fort Lafayette to prepare for lighterage certain sizes and quantities of projectiles, etc.

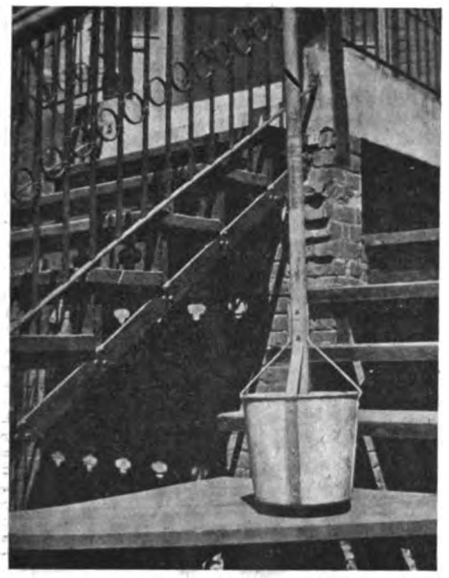
About the time the supplies are ready the ship in question heaves in sight. Without the telephone—well, it hasn't been determined yet just how matters would be handled.

At the dedication of the Maine Memorial monument last summer several of our battleships assembled in New York Harbor, and Fort Lafayette expected to be unusually busy when suddenly the telephone was reported out of order. When the trouble was definitely located in the submarine cable, which by the way is government owned and maintained, the prospect seemed a gloomy one.

The Chief Gunner in charge of the fort called the Bay Ridge Wire Chief, explaining the absolute necessity for telephone service. After looking over the ground, the Wire Chief tried in vain to procure sufficient one-pair lead cable to reach from the mainland to the island. Finally, with the help of a government rowboat, a coil of 14-twisted-pair wire was submerged, with a weight here and there to hold it down. When the wire was connected to the instrument, it was found that the insulation resistance measured about 100,000 ohms. Each day the insulation broke down a little more, until on the fifth day the line was reported for a "steady signal," having lasted just long enough to allow the naval authorities to prepare and lay a temporary cable ordinarily used for exploding submarine mines. This cable is still in service, pending the arrival of the new submarine cable ordered by the government.

L. R. MERSON,
Wire Chief, Bay Ridge.

Digitized by Google



PAIL UPRIGHT.

FULL VIEW OF PAIL.

BOTTOM OF PAIL.

Bailing Water Out of Pole Holes

THE accompanying illustrations show an apparatus that I have designed for bailing water out of pole holes.

In practical operation it has proven extremely useful, and what is equally important, economical. It is not at all cumbersome, and consequently lends itself readily to easy transportation.

The bucket is 10" high; 10" in diameter at the top, and 8" at the bottom. The bottom is fitted with a double valve which opens from the pressure of water below, and is closed by the weight of water within the pail as it is lifted.

After many thorough tests, I find it about fifty percent more efficient than the present method of removing water from pole holes.

S. J. AXFORD,
Supervising Foreman, Englewood (N. J.) District.

Reminiscences

I AM sending you an article for *The* TELEPHONE REVIEW entitled "The Reminiscences of an Old Operator," if you think it worth while to publish it.

I went to work for the Commercial Telephone Co. of Albany in June, 1882. Our office was in the Van Heusen Chanler Building on Broadway, and we had two branch offices, one on South Pearl Street and another on Washington Ave. We had the old Utica fire alarm switchboard at the time. Our General Manager was Mr. A. B. Uline of Albany. We had, I think, about nine hundred telephones, and all operators were boys.

I will relate two funny incidents that happened. Mr. Uline, our General Manager, was in the old Delevan Hotel one evening and he noticed the zinc was gone in the battery cell of the telephone. He called on the telephone and told the operator to send him up a zinc. Being a new operator and not knowing what a zinc was, he sent him up the zinc under the stove.

Another funny incident happened at the time: I was answering a call from the Church Street freight office and did not answer the man the minute he called. He said, "I will come up and thrash you." I said, "Come along." Up he came in his shirt sleeves. It just happened at the time that Mr. Hoff, a lineman, was in the office, a man of about 6 feet and 3 inches. In the subscriber rushed and I being at the end of the board he came up to me and said, "Are you the operator that answered me?" Of course, I being a small boy, did not dare to say yes. So I pointed to Mr. Hoff and said, "No, there he is." He gave one look and said, "Will you please introduce me to him?"

I remember the first connection we had to New York. I think it was in July, 1885. Mr. Uline, our General Manager, Mr. Hirstone of the Western Union Telegraph Co., and other gentlemen were present at the time. We got the connection up but it was very indistinct. I think it was in 1887 that we had good transmission to New York.

WILLIAM J. WHITE,
Night Wire Chief, Troy, N. Y.

How His Wife Made Him Talk

One day, while serving on the board, I handled a call for the cottage of a subscriber's coachman. We had a lot of trouble getting the coachman's wife to talk. Presently she understood that it was her husband calling and her hesitation vanished, but by this time he had become angry and refused to talk. The operator at his end of the wire after a while cut in, saying, "There is your party; talk to them, please!"

Upon hearing a woman's voice, his wife became excited and demanded to know, "Who is that woman with you?"

Then her husband had to talk.

E. F. COURTER,
Agent, Peapack, N. J.

The Greatest Time Saver

IN the August, 1913, issue of *Pere Marquette Magazine,* the organ of the Pere Marquette Railroad, George C. Conn contributes an article entitled "Suggestions to Agents," which applies with equal force to employees in many other industries.

The article follows:

The telephone is without doubt the greatest time saver among all our modern inventions. One has only to go back a few years to recall the conditions in vogue before its general introduction. The writer worked in the general offices of an eastern railroad when there was but one telephone instrument in the building, and sometimes that one did not work well.

The modern instruments, with better wire induction, make the telephone almost perfect, and its universal use enables one to promptly reach all important places and persons.

The telephone enables you to get into a man's private office at any time. You need not wait outside while your card is sent in. This freedom of access, however, must not be abused because it is something of real value. Agents should keep a telephone list of patrons and know the man to call at each place. It takes but a few minutes each day to call up a few people to inquire if matters are O. K. or if anything is wanted. You get the right man at once and he soon learns that you are watching his business. It saves your time, and our patron's, and is a great soliciting agency if properly used. Politeness and courtesy are as essential over the wire as when you meet a man face to face.

Digitized by Google

Oil Catchers Solve a Wire Chief's Problem

IN the care and operation of the gas engine used in certain central offices in connection with the charging of the storage batteries, one of the most essential rules to be observed deals with cleanliness of engine and room.

In offices where the engine room is finished in white enamel, keeping up the high standard of cleanliness becomes a difficult task because oil is often thrown by the flywheels of the engine on the walls, floor and ceiling.

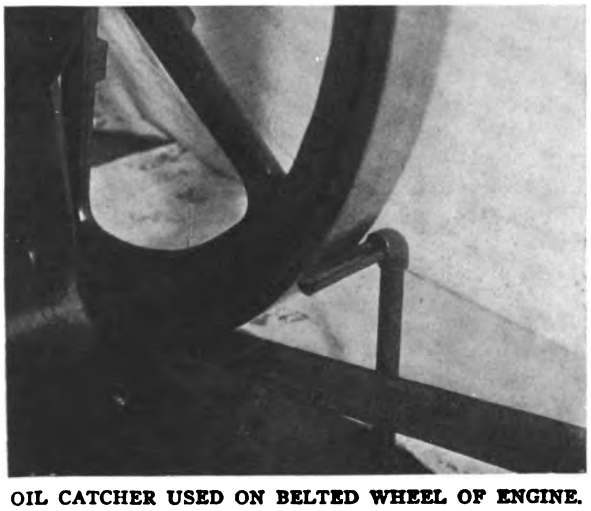
Some of this oil comes from the shaft bearings, while a larger portion is thrown by the crank direct to the spokes where it is drawn by centrifugal force to the outer rim of the wheel and gathers in small drops before being thrown off.

In the Bushwick Central Office I have entirely eliminated this objectionable feature by means of oil catchers.

Figure 1 shows the device used on the belted wheel of the engine. It consists of two pieces of 1½ inch gas pipe of different lengths joined at right angles by a threaded elbow. One end of this "L" shaped pipe was imbedded in the cement floor close to the flywheel in an upright position with the short arm horizontally extended close to the rim of the wheel. The short piece of pipe forming the arm was sawed half way through close to the elbow, then sawed longitudinally through the center and the upper portion removed. The free end was then closed with a piece of thin metal, thus forming a trough in which, held by a narrow strip of iron fastened by two machine screws, is a strip of hard fibre which projects ⅜ of an inch above the edge of the arm and bearing against the outer surface of the flywheel with considerable tension, acts as a scraper and keeps the rim of the wheel free from oil. The oil thus gathered drains from the open end of the trough into the hollow upright which is tapped with a ¼ inch outlet pipe on which is suspended a small can.

The device shown in Figure 2 is used on the free wheel. It is constructed from an oblong tin can which is cut as shown in the illustration, filled with waste and placed on the floor close to the wheel, so that the waste presses against the rim. During the operation of the engine the waste acting as a wiper absorbs all oil from the wheel.

R. A. PARISIAN,
Wire Chief, Bushwick Central Office.



OIL CATCHER USED ON BELTED WHEEL OF ENGINE.

DEVICE FOR ABSORBING OIL ON FREE WHEEL OF ENGINE.

Foreigner Lost—Found by Telephone

WHILE waiting in the railroad depot at West Haverstraw, N. Y., one morning early in August, I learned of a new use for the telephone. A young man stepped from a west-bound train and stood on the station platform, apparently looking for some one. Finally he walked to the ticket office and produced a small scrap of paper, upon which was written a few words of some foreign hand. The stranger seemed utterly at a loss as to the surroundings, and the men in the ticket office soon discovered that he could not speak or understand a word of English. A fireman from the freight yard tried to get his story by asking a few questions in Italian; others tried in German, but still nothing could be found out as to whom he wanted or where he wished to go. The foreigner was getting confused and seemed very discouraged, but as he turned to go out I thought of the telephone.

"But he couldn't talk if he does get hold of it," said the railroad men. "He doesn't know what they are used for."

"Never mind," I said. "People use it to find almost everything now-a-days, and I'll try something as a last resort."

After consulting the telephone directory, the local priest, who has a Slavic and Polish Church, was called up and the case explained to him. He said that he would try to help the fellow in distress. By leading the foreigner to the instrument and making signs as to the use of the telephone, we succeeded in getting him to try it. The poor fellow was to all appearances afraid of the instrument, or may have thought the office force was joking with him.

I spoke through the transmitter and told the priest that the fellow was holding the receiver and waiting for some words of help. When a word in Slavic was spoken by the priest a smile and an exclamation of delight came from the young fellow at the telephone. The foreigner poured the words through the instrument faster than any lawyer could make them go. After the conversation ended, I questioned the priest (not in Slavic). thus finding the object and destination of the stranded one.

By expressions and sounds the fellow tried his best to show that he was truly grateful for the help, but the men in the office could see that he was more than puzzled regarding the unseen friend who had so mysteriously come to his rescue, and in his own language at that. As he turned to go he took one last glance at the telephone, as much as to say that he thanked it, but still——.

"By Jove!" said the dispatcher, "that's the greatest thing I ever heard of—a foreigner lost, but found by telephone. We couldn't talk to him, but that machine could."

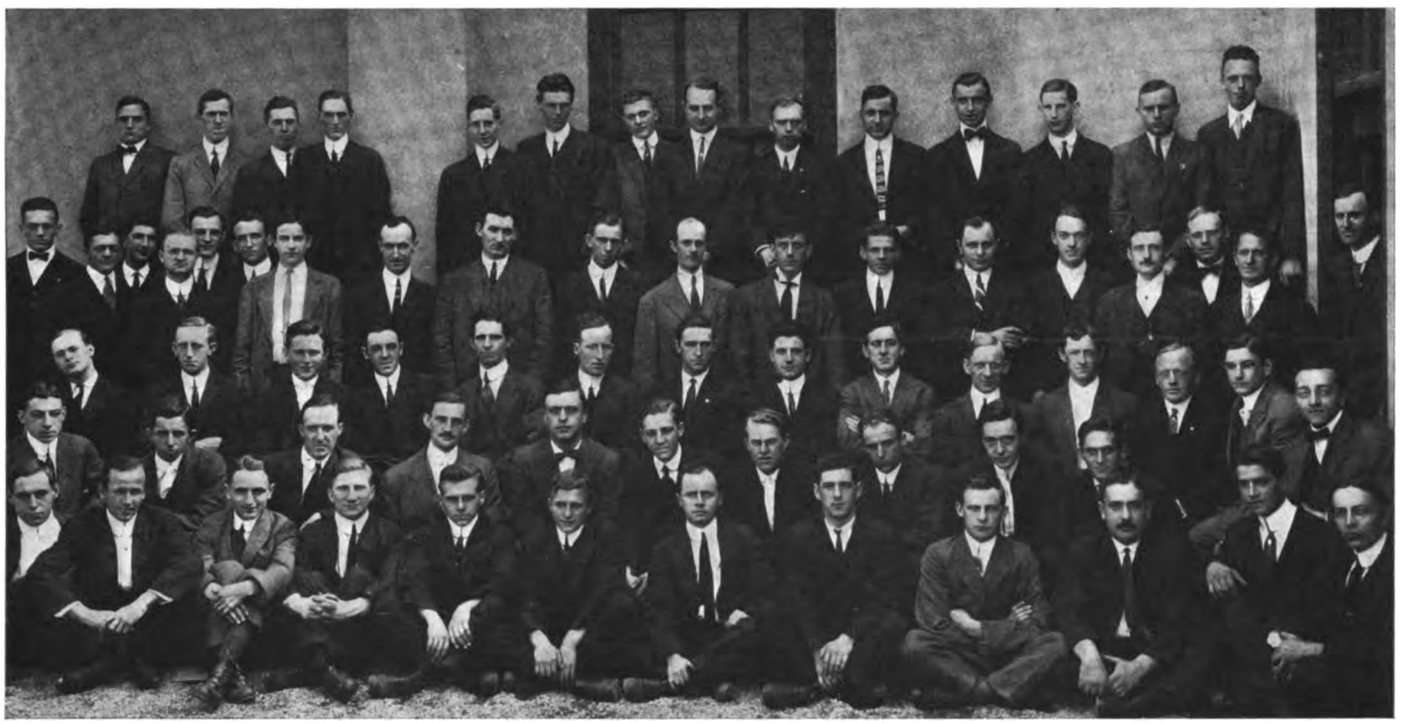
"Well," said I, "didn't I always say, When in doubt, telephone and find out? Some people think that only the English language can glide through the telephone system, but that is not so, because 'The telephone speaks all languages.'

"By the way, have all you men got telephones in your homes. I guess you can see that they are mighty convenient at all times."

"There goes my train," said one of the men. "I'll see you later."

J. S. GATES,
Salesman, Nyack, N. Y.

Digitized by Google



CENTRAL MANHATTAN DISTRICT INSPECTORS, SEPT. 21, 1913.

Plant Inspectors—The "Troublemen" Who Make Things Right

By W. Kirkbright, Special Inspector, Plant Department, Manhattan

FROM time to time the merits of the different departments have been set forth through the medium of *The* TELEPHONE REVIEW and their relations to other departments and the public in general defined.

The Commercial Department meets the prospect and has a contract signed; of course this is the important step and is the keynote to all the rest. The installer places the instrument and after a test out by the Wire Chief leaves. Their contact with the subscriber ceases upon the completion of their work. The employees who are in personal contact with the subscriber 365 days in the year, under all conditions, are the central office operators and the inspectors. In view of this the Telephone Company is judged largely by the conduct, ability and personality of these employees.

The same courteous treatment must be extended to subscribers, whether they have a single instrument or the largest Private Branch Exchange. The main object is to satisfy the subscriber.

The men selected for these positions are such as are able to meet these requirements. After the completion of a course of instructions, which have been explained in a previous issue, the inspector is turned over to the Special Inspector for development.

The efficiency of this department is greatly enhanced by a series of meetings held monthly. Here the Special Inspectors come in closer contact with their respective forces and the inspectors themselves have the opportunities of knowing each other, which could not occur otherwise.

At these meetings the details of the various rules and routine are explained in detail and peculiar troubles discussed and the method of locating and clearing them explained. In this manner the newer men get the benefit of the experience of the older ones. Suggestions of all kinds are encouraged and are made by the men. These suggestions are acted upon by the department interested.

The enthusiasm displayed at these meetings is very evident, inasmuch as the men are very often discussing "Telephones" long after the close of the meeting.

The duties of the inspectors are to make routine inspections of all subscriber apparatus for the purpose of putting it in perfect condition and to clear special troubles.

All special trouble reports, which include among them broken apparatus, "can't hear," "can't call," "cut out," "opens," "grounds," "short circuits," wires down,—and in fact any complaint made by a subscriber, regardless of its nature, all are taken up immediately and the trouble eliminated in the shortest possible time.

Within the past year the Inspection Department has taken over all line repairs previously handled by linemen of the Wire Chief's force, and also the locating of cable troubles, such as injured sheathing, nail holes, cuts, etc., in cable which were formerly handled by the Galvanometer Department. The making of all minor repairs on new work installation and the minor changes of apparatus which were formerly handled by the Installation Department are now handled by the inspectors. This addition to inspectors' previous work has been a beneficial one, as statistics show a reduction of time in clearing trouble. In Madison Square and Chelsea districts alone the average time for the month of August 1912 was one hour and fifty minutes and in 1913 one hour and thirty-nine minutes. This time will decrease as the men gain skill and familiarity with the new branches of the work.

The routine of handling subscribers' complaints means a considerable saving in maintenance cost, with

Digitized by Google

the minimum amount of annoyance to the subscriber.

The accompanying photograph is of the inspectors who have charge of the maintenance of the lines in the geographical center of New York City which include practically the entire hotel, department store, and theatrical districts, the great railway terminals, and Atlantic Steamship lines. The men did not know the picture was to be taken until they were assembled for the purpose, but their neat appearance would almost make you think they had been "tipped off."

The homes of some of the nation's greatest capitalists and the leaders in New York society are also found in this district. Under the supervision of Special Inspectors Kibblier and Kirkbright, who handle these districts, seventy-one men care for a total of 100,417 stations, 3,438 of which are Private Branch Exchanges. Twenty-two of these exchanges carry full central office equipment. They range from a 40-line standard board to a 15-position lamp board.

The importance of the inspector's position in relation to the subscriber is clearly evident and too much attention cannot be given to their perfect development.

The Conservation of Distributing Frame Wire

By M. Greene, District Inspector, Brooklyn

IN the spring of 1912 there appeared in one of the western telephone magazines, an article describing a scheme for re-using short lengths of wire removed from the distributing frame on account of disconnections, transfers, etc.

The economical disposition of wire of this sort has always presented somewhat of a problem, and storerooms have often reported an accumulation of as much as 100,000 feet in lengths varying from 5 to 25 feet. At a cost of one cent per foot this represents a value of $1,000. Wire Chiefs have standing instructions to draw short pieces instead of new coils as much as possible, but because of the amount of waste and the difficulty in sorting and handling, these instructions can not always be closely followed. It is obvious, therefore, that if a scheme could be devised whereby each central office would re-use all of its own "second-hand" wire, considerable saving to the Company would result.

The scheme proposed by the western paper included a very complicated figure chart by means of which the proper length of wire required for a given cross connection could be calculated. It was apparent that a chart of this kind would be very inefficient in a large office, and a committee of Brooklyn Wire Chiefs was appointed to work out a scheme better adapted to conditions in this territory.

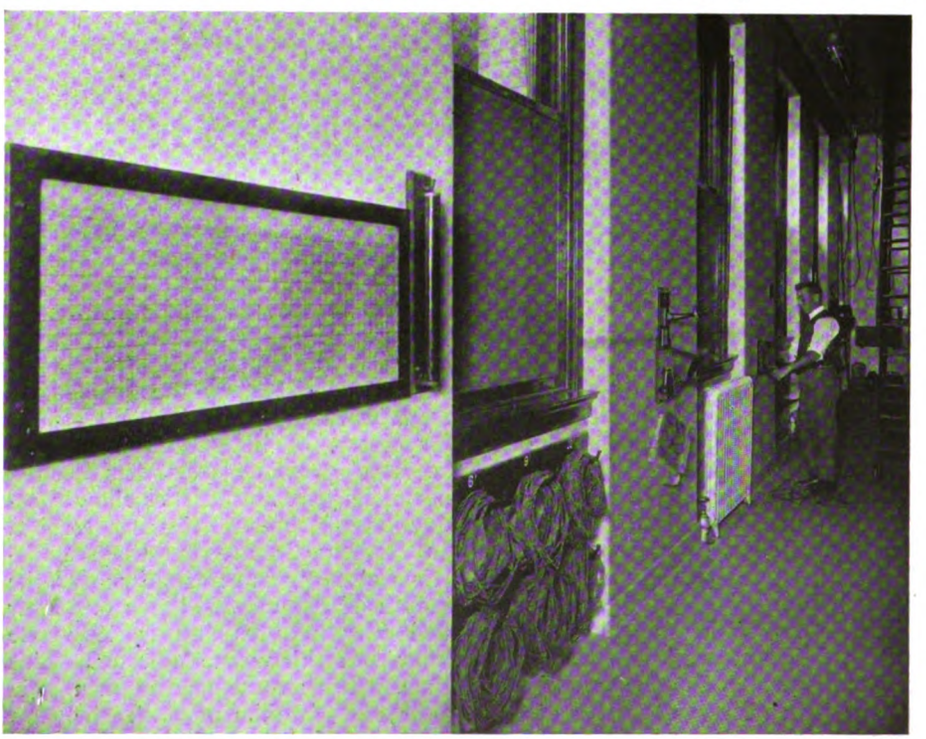
Several plans were proposed and tried out, the one finally adopted being as follows:

1. A chart was prepared showing an outline picture of the main frame drawn to a scale of one foot to the inch. Cable and pair numbers were indicated on the vertical uprights and line numbers on the horizontal strips. Across the face of the chart horizontal and vertical lines were drawn, in red and purple ink alternately, one inch apart. By counting the lines passed along the route that any desired cross connection would follow and adding 1½ feet for the depth of the frame, the length of wire required could be readily obtained close enough for all practical purposes.

2. Four wooden pegs were mounted on a backboard in the form of a square, nine inches between corners, and the backboard attached to the wall in the rear of the main frame. This arrangement is used to coil and at the same time measure the pieces of wire removed from the frame. As the length of each turn in the coil is approximately three feet, the total length of wire in any coil can be easily checked by simply counting the number of turns.

3. A number of small harness hooks were also mounted on the wall in a convenient location and each hook designated with the size of coil it was intended to accommodate. It was found impracticable to sort the wire into coils varying less than three feet in length and the hooks were therefore designated 6, 9, 12, 15, etc., the total number depending on the size of the frame.

With this method of sorting, a piece of wire measured and found to be 17 ft. 6 in., would be placed on a hook where it would be available for a 15 ft. cross connection, with a possible maximum waste of 2½ ft. It is obvious that some waste is unavoidable unless very accurate measurements are made. This, however, would require more time on the part of the men operating the scheme and the increased cost would probably more



REAR OF MAIN FRAME, BEDFORD CENTRAL OFFICE, SHOWING CHART, HOOKS AND MEASURING REEL. THE FRAME MAN IS SHOWN COILING AND MEASURING A PIECE OF WIRE WHICH HAS BEEN REMOVED FROM THE FRAME. THE CHART SHOWS THE LENGTH OF WIRE REQUIRED FOR ANY CROSS CONNECTION.

Digitized by Google

than offset the value of the short pieces saved.

The scheme outlined above was installed in the Bushwick central office and after a year's trial it was found that the Wire Chief was able to reuse, without handicap, all of the second hand wire removed from the frame. Moreover, with all short pieces measured and coiled in definite lengths, the tendency to use a 20 ft. piece for a 14 ft. cross connection, thereby creating a junk length, was eliminated. It was found also that wiremen engaged in making large transfers were able to use the scheme to advantage.

During the months of September and October, 1912, at Bushwick, seven protector strips of 202 pairs each were replaced by seven 303 pair strips, the cross connections to the larger strips being made with new wire. Old wire removed, amounting to 9,332 feet, was measured, coiled and hung on the proper hooks. By November 15 all of this wire had been re-used by the Wire Chief and "Back Tap" men, with the exception of 32 lbs. of junk wire, representing 2,336 feet, all in pieces of less than three feet length and averaging about 18 inches. It seems fair to assume from this data that about 75% of the wire recovered from the main frame can be economically re-used.

Another feature of the conservation scheme is the fact that if all old wire is re-used in the central office there will be none available for cross connections in outside terminals. The process of flame-proofing the insulation on distributing frame wire renders it hygroscopic, with the result that when used in the more exposed terminal boxes, considerable trouble is experienced from moisture. In some cases the cross connection wires have been found to be completely saturated with moisture, causing a heavy leakage to ground on all wires in the terminal. The trouble has been so extensive that in submarine cable houses and in all terminal boxes located near the coast, distributing frame wire has been replaced with wire having a weather-proof insulation. Weather-proof wire costs no more than distributing frame wire and is undoubtedly superior for outside work. It has not been used generally, however, due to the fact that it was more economical, wherever possible, to use the short pieces of distributing frame wire which would otherwise have been wasted. If each central office is enabled to dispose of all its own distributing frame wire it will be possible to use weather-proof wire entirely in outside terminals and thus materially improve the insulation of the outside plant.

From Missouri

A LOAD of thirteen 35-foot Class B poles is more than any of our Divisions has attempted to haul on a 3-ton truck, so far as we are aware, but the accompanying illustrations show that the Missouri & Kansas Telephone Co. are doing it.

The photographs were sent by H. D. Givers, Chief Foreman Aerial Construction, Kansas City, to Mr. Foraker. The trailer is the front wheel section of a heavy platform spring wagon. On the truck they have a bolster to which is connected the trailer by means of a three-inch iron pipe, giving the necessary flexibility. This arrangement was entirely "home made."

Buffalo—New York Telephone Men on 74th Championship Rifle Team

SERGEANT W. C. HAVENS, Corporals R. Honour and A. J. Fisher, employees in the Plant Department, and Sergeant A. V. Ednie, Commercial Department, shot on the Seventy-fourth Infantry Rifle Team that made a clean sweep of the three trophies offered for competition at Peekskill, N. Y., September 22-24.

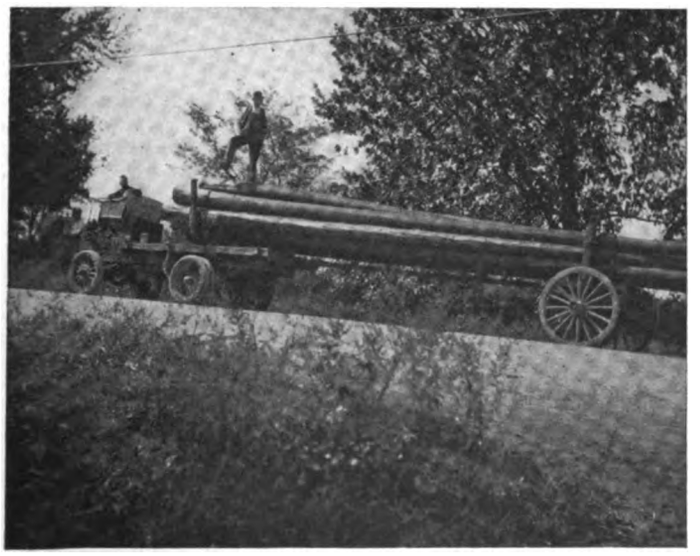
The result of the first match for the Fourth Brigade Trophy was 74th Infantry first with a total of 1,573 and the Third Infantry second with a total of 1,532.

From nineteen opposing teams, the 74th ranked first in Tuesday's match for the Adjutant General's Trophy.

The climax to this brilliant shooting was reached on Wednesday, the final day of the tournament, when their team of twelve men distanced their nearest competitors by a margin of 104 points, and won the Championship of New York State, the Seventh Infantry of New York City being second and the Third Infantry third. This is a duplicate of their performance two years ago which has never been equalled by any regimental team in this state, while their score in the New York State Championship is the highest ever made in a match of this kind.

The 74th Infantry is certainly keeping up its reputation as the best shooting regiment either in the regular service or National Guard in the United States.

E. V. EDNIE,
Com'l Engineering Dept., Buffalo.



3-TON TRUCK AND TRAILER CARRYING A LOAD OF 13 35-FOOT CLASS B POLES—MISSOURI & KANSAS TELEPHONE CO.

Digitized by Google

TUBERCULOSIS

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

There is no disease with which the public is more familiar than tuberculosis, or phthisis, commonly known as consumption. The frequency with which it occurs is indicated by very carefully prepared statistics relating to this subject, which show that one of every seven deaths throughout the world is due to tuberculosis, and at least 150,000 persons die of this disease in the United States every year.

From this rather depressing statement we turn to the more comforting part of the subject, for the purpose of this article is rather to describe the means by which tuberculosis is transmitted and to show how it may be avoided, and if a person is unfortunate enough to contract the disease, the hope of recovery that is extended if the infection is early detected and the patient promptly and properly cared for.

For centuries tuberculosis has been described in medical literature, and various theories have been suggested as to its cause. Its infectiousness has long been suspected, for as early as the seventeenth century the bedding and clothing of consumptives were burned to prevent danger from this source. The belief that tuberculosis is hereditary, and may appear in various members of a family as a result of this cause, has until recent years been generally accepted, and the appearance of the disease in the past has been largely explained in this way. Many other theories have from time to time been advanced as to the cause of tuberculosis, but the true means of infection was not definitely determined until about thirty years ago, when Dr. Robert Koch, of Germany, presented as the result of his researches conclusive proof that this disease is caused by a specific germ or organism, scientifically known as the tubercle bacillus. This organism is a little rod-shaped body, which is revealed only by the microscope, for it is so small in size that it would require almost three thousand of them placed end to end to fill the space of an inch.

This important discovery was quickly followed by most active and extended investigation throughout the world, in order to secure further information as to the habits of this organism, its power of resistance, and the manner in which it may be destroyed. It has been proven that tuberculosis is contracted only through the medium of the tubercle bacillus, and that heredity plays no part in its transmission, although a naturally weak resistance may descend from a parent to children, and in this way render them more susceptible to this as well as other diseases. The value of this knowledge cannot be overestimated, for it enables us to deal directly with the only cause of infection.

Later results, largely through the indefatigable work of Dr. Koch, have shown that animals and fowls are also affected by certain forms of tuberculosis, although it is only the bovine variety, or that which occurs in cattle, that concern us, for in this instance the tubercle bacillus is similar to that found in the human being and may be transmitted to the latter through the medium of infected cow's milk. In some uncommon instances diseased meat may cause infection, although the latter is a very unimportant factor, for meat is cooked before it is eaten and the germ is thus destroyed; besides, meat prepared for sale is now under careful official inspection.

Children suffer from infected cow's milk, for it is probable that more than one-quarter of all cases of tuberculosis occurring under five years of age are contracted through this course. For various reasons, adults rarely, if ever, contract consumption in this way. Therefore, while the milk from infected cows is a dangerous factor in the transmission of tuberculosis in very young subjects, it is insignificant compared with the infection conveyed from one human being to another, for by this means more than 90 per cent. of all cases of tuberculosis are contracted. For this we are individually largely responsible, for by proper care and the observance of modern sanitary regulations the number of cases of this disease can easily be reduced.

While tuberculosis may attack various tissues of the body, it usually selects the lungs for the seat of its operations, and it is this form of the disease with which we are chiefly concerned in connection with its prevention and cure.

The germs of tuberculosis upon reaching the lungs multiply rapidly and cause local inflammation and subsequent loss of tissue, which is responsible for the cavities formed in the latter stages of the disease. This broken-down tissue, containing tubercle bacilli, is thrown off with the expectoration or sputum, and it is through the medium of this matter that infection is transmitted.

It would be impracticable even to attempt to enumerate the various avenues by which infection is conveyed from one person to another. Tubercular expectoration in the street, the expectoration of consumptives within their homes or in the workshop, articles which are used in common in connection with food and drink, infection by unclean hands and by other means of contact, are among the media more commonly referred to. We have learned much in regard to the germ itself which has a direct bearing on this part of the subject, for careful experimental work has shown that when the bacilli are exposed to sunlight and fresh air they succumb within a very short time; but when the sputum is deposited within the house, particularly where the apartments are badly ventilated and where there is but little or no light, the germs may retain their vitality for a long period. This teaches us that the danger of contracting the disease is not in the open air, but within the house or workshop. Therefore, tuberculosis is an indoor disease, for the various factors which are needed to favor its transmission and prolong the life of the tubercle bacilli, in the way of overcrowding, improper ventilation, uncleanliness, etc., are found here. For this reason also tuberculosis is a class disease, for the conditions just referred to are found chiefly among the poor, who are by far the most frequent victims of consumption.

The question is very naturally asked, Why, if the germs of tuberculosis are so generally distributed, do so many of us escape infection? The truth is we do not escape it, for it is quite certain that a large per cent. of all who have reached adult life, particularly those who live in cities or large towns, have been infected with this organism, although only a certain proportion present evidence of the disease. This is principally due to a good, healthy resistance on the part of the tissues, upon which the bacilli make but little or no impression. This condition is also constantly occurring in connection with other infectious diseases, such as typhoid fever and diphtheria.

Within the past few years conclusive proof has been presented that persons known as "carriers" contain infectious organisms within their body, and while apparently in good health commonly transmit disease to others. There is no doubt that our protection against tuberculosis, as well as against other diseases, depends largely upon a substantial resisting power. Of this we have much proof; for instance, it is well known that tuberculosis very commonly follows a debilitating disease or a condition which for the time being diminishes the vital forces.

Digitized by Google

The importance of maintaining a natural resistance to disease in the way of good health has been repeatedly referred to in previous articles relating to value of fresh air, sunshine, exercise with proper expansion of the lungs in order that these organs may be increased in power and properly ventilated, good nourishing food, and careful attention to the digestive organs in order that food may be properly assimilated, and the avoidance of all excesses in order that the system may not be weakened. This plan does not intend that we shall live in a restricted or in an unpleasant way, but that we shall preserve a normal condition of health by careful attention to personal hygiene. Other preventive measures, so far as tuberculosis is concerned, relate chiefly to protection against infected sputum in instances where there is reason to believe cases of known or suspected tuberculosis are present. This may be secured largely by the avoidance of articles which may be used by those who are infected, and which may transmit the organism to the mouth of others—cleanliness not only of the hands, but in various other ways, is of great value in this direction.

Beyond these and other reasonable precautions, we should dismiss the question of infection from our minds and not expect to find it lurking everywhere, for this does not occur. Furthermore, the danger of contracting tuberculosis in the street or public places or conveyances need cause no alarm, for its importance is greatly overestimated. It is rather in the home or workshop where we must deal with the infection of this disease.

The cure of tuberculosis depends chiefly upon the recognition of the disease in its early stages, for then it is far more successfully dealt with, as but little of the lung tissue is involved in the process of destruction and the general health of the patient is not seriously impaired.

There is no other disease where recovery rests so largely in the hands of those who are infected as tuberculosis, for there is no remedy in the way of medicine, vaccine, serum or any other agent which can be depended upon for aid in the cure of this disease. Advertisements relating to so-called consumptive cures are being constantly presented to the public; these nostrums are offered for sale with the most attractive testimonials. If those who are being misled by these worthless agents could know the lives that have been lost by depending upon them until it is too late to derive benefits from proper sources, it would go far towards exterminating this menace to the public health.

While the cure of tuberculosis depends chiefly upon the efforts of the patient, it is imperative that he shall be under medical direction and supervision, at least until he has learned the discipline of the care and treatment of the disease. It is not expected that a layman will be able to recognize tuberculosis in its early stages, but whenever a person finds that his general condition is becoming impaired—by such evidence as loss of weight or appetite, irritability, fatigue, continued cough, etc.—he should without delay consult a physician, whether or not there is any evidence of pulmonary trouble, for in the beginning of the disease attention may not be attracted to the lungs. Dependence upon home remedies in these instances is unfortunately widespread, and is to be condemned, for it frequently involves danger to those who are disabled. This does not refer to the careful and valuable nursing one may receive at home, but rather to the absence of proper medical supervision. Aside from the protection to the patient which this extends, it is economy to promptly seek medical advice, for by this means recovery may be sooner effected.

By following the above course, tuberculosis may be promptly detected and a well-organized compaign may be planned for the cure of the patient. This will involve instruction regarding the best and most practical means of obtaining fresh air, rest, and good nourishing food—*which constitute the most valuable factors in obtaining successful results.* These instructions should conform so far as practicable with the financial and social conditions of the patient, who will also be instructed as to the danger of infected sputum and what he shall do to destroy it, and how to protect others against infection from this source. Under certain conditions and proper advisement, the patient may continue his work without special injury to himself or to others. In cities and large towns dispensaries and clinics may be found for the treatment of the poor; therefore there is no reasonable excuse why a person in any station of life should not be able to secure early medical attention.

Parents and guardians have an important duty to perform in this direction, for tuberculosis occurs principally in early life, and any apparent deviation in the health of those under their care should call for a prompt and careful physical examination. It is also the duty of an employer to carefully observe the physical condition of his employees, not only in the interest of those who may have tuberculosis or other infectious diseases, but for the protection of the associate employees as well as the employer himself, for the minimum amount of sickness means more satisfactory and less interrupted service and really constitutes an economical factor.

A word may be said as to the danger of infected milk and the means by which it may be prevented. In cities where we must depend upon a supply from innumerable dairies, we cannot be sure of milk which is not contaminated, except in instances where a large and often a prohibitive price is demanded. For this reason we must resort to domestic means of protection against infection from this source, particularly where there are children in the household. Pasteurization is generally accepted as the most practical and simple means we can employ for this purpose. Boiling is sure to destroy all germs which the milk may contain, but it renders less valuable some of its nutritious constituents. Therefore, for prolonged use, Pasteurization should be selected. This process consists in subjecting the milk to a temperature of 150 degrees for twenty minutes, then placing it on the ice. This temperature does not affect the milk as when boiled, which requires a temperature of 212 degrees, but it is quite sure to destroy the tubercle bacilli and render harmless other forms of bacteria which may be present. The details of this process, which have already been given in a previous article, are as follows: The bottles containing the milk, properly sealed, may be placed in a pan of water, the latter being raised to a temperature of 150 degrees and kept at this point for twenty minutes. The bottles are then to be removed and placed in the ice box close to the ice. As a matter of economy so far as the ice is concerned, the temperature of the milk may first be lowered by subjecting the bottles to a flow of cold water.

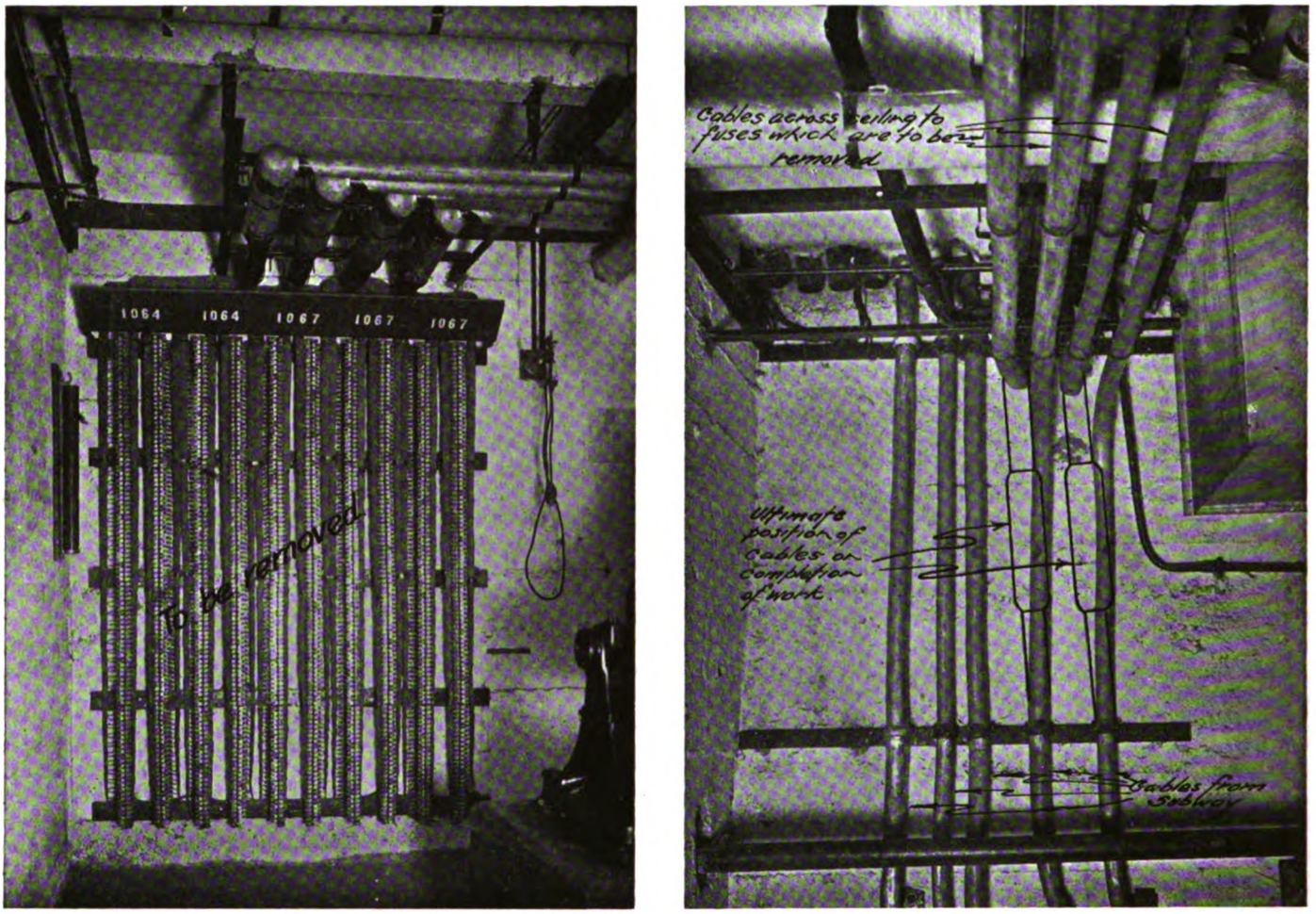
The use of powders or other mixtures advertised as preservatives of milk should be avoided, for they cannot be depended upon and may do considerable harm.

Modern sanitation demands that cows shall be kept clean and under careful observation, and that every reasonable means shall be taken to detect the presence of tuberculosis among them, for, as in the human being, this disease in its early stage is frequently overlooked. The tuberculin test constitutes a valuable and scientific means of detecting this disease in cows, and when injected in these animals a certain reaction follows if the disease is present, and as its accuracy may be depended upon, there is no valid excuse why private owners or dairymen should not make use of this test in order that milk infection may be prevented. Cows should not be purchased unless a proper and satisfactory certificate is presented to the effect that a tuberculin test has been made with a negative result.

It needs but a superficial study of tuberculosis to show that the disease may be prevented and cured if proper means are employed. Prevention depends chiefly upon a formidable resisting power on the part of the body, which it is not difficult to maintain if careful attention is paid to personal hygiene. The cure of tuberculosis depends upon prompt and proper medical advice and guidance, and strict attention to regulations which are prepared for the welfare of the patient.

When the public have learned how much can be done in this direction and the value of their co-operation, there is but little doubt as to the aid which will be extended in the extermination of this disease.

Digitized by Google



LOOKING AHEAD AT GLEN COVE.
Showing How Installation of Cables and Main Frame in 1909 Was Planned to Make Way for Subsequent Development.

Looking Ahead

WITH the changes in practice which are continually being made in order to meet new plant conditions, it is always desirable, when it can be done at no undue additional cost, to lay out work so that a minimum expense will be involved if a change becomes necessary.

When the Glen Cove common battery office was established in 1909, two of the underground cables were protected with fuses placed in the cable vault as they were spliced directly to long aerial feeder cables without fuse protection at the underground poles. In providing additional underground cable and extending the present cables, it became desirable to remove these fuses and the cables were spliced through in the vault and regular fuse protection was placed where exposed aerial lines feed into the underground cable. As this was foreseen, the cables had been arranged as shown by the accompanying illustrations, so it was a simple matter to make the change.

It is interesting to note that due to lack of space to turn the cables on the ceiling and in order to economize on the more expensive okonite form wire, a "knuckle joint" was devised, as shown above the fuse bank. This type of joint has since been adopted for splices in underground boxes where it is essential that the splice be made in as small a space as practical.

H. H. SHEARER,
Division Plant Engineer,
Long Island.

One Way of Replacing a Transmitter Mouthpiece

THE accompanying illustration shows a method used in some divisions for replacing broken mouthpieces at subscriber stations. Reports of broken mouthpieces are referred by the central office deskman to a clerk in the office of the Chief Foreman of Station Inspectors. A mouthpiece, enclosed in a small cardboard container, is mailed to the subscriber. A small notice, bearing directions for placing, is enclosed with each mouthpiece.

In one division, where this scheme has been working for eight months, there have been mailed out an averege of 385 mouthpieces a month. It is estimated that from 25c to 30c in each case are saved by making use of the mails.

It is apparently true that "man is a tool-using animal," for almost no difficulty seems to be experienced by subscribers in placing the new mouthpieces which are sent to them.

MOUTHPIECE ENCLOSED IN CONTAINER AND MAILED TO SUBSCRIBER.

Digitized by Google

Traffic Complaints

By G. W. Hoffman, Assistant Traffic Manager, Bryant Complaint Bureau, Manhattan

A TRAFFIC complaint is a criticism brought to the attention of the company through the reporting of a real or fancied fault of the telephone service. The leads thus given by the party who is complaining open a way to a thorough investigation of all the details referred to in the complaint, thereby giving us outside information as to our weaknesses and suggesting a subject for study, or enabling us to correct misunderstandings, as the case may be.

Nearly every business, nowadays, has so far progressed that a complaint is courteously received and an investigation promised. Often however, this investigation becomes a mere matter of routine by subordinates. Their investigations are supposed to be done well, but sometimes are not. It is not agreeable work and it might not seem necessary to spend so much time on it but the problem of "complaint handling," is of the utmost importance and demands selection of the right men, possessing a degree of judgment and experience not second to that needed in any branch of our company.

The person answering a subscriber's complaint has one big point to remember, that is, you should not question whether we are right or the complainant is right. We must make the complainant feel sure we think his or her complaint is justified, and they must go away from the telephone glad that they have complained, no matter what a subsequent investigation may disclose. I am not forgetting the "crank" who demands everything, in terms most sarcastic, insulting and personal. These people must be made to understand that you are meeting reasonably every complaint they make.

Most any one can handle a simple complaint given by a reasonable person. The people that "kick" and are wrong and bitter—those are the men and women who must, by patient, tactful and personal handling, be made to realize that our interests and the public's are mutual and that in our dealings we are endeavoring to give them the best possible service. Satisfying a person who thinks he or she has been insulted, aggrieved or ignored, is no easy matter; the person capable of so doing must have experience, a complete knowledge of the operating rules and instructions, know the routine of the Traffic Department, and have a general idea of the workings of all other departments of the company.

A salesman visiting a merchant with the intent to sell some goods may on his first visit be thrown out of the office, yet he returns and by his tact and eloquence often sells the goods; just so with the handling of these complaints: if the person does not seem perfectly satisfied at the end of your original conversation, call him again and then put before him with forceful personality the reasonableness of your argument and explain details. Personality proves effective here as in many other cases.

The "complaint man," who has shown himself to be a competent official and one worthy of his position, represents the company through his explanations of the company's workings and is responsible for much of the favorable opinion in which the Company is held by the public. When a complaint is received, listen attentively to each word as spoken, noting down the items complained of. At this time it is well to remember that it is important to restore the subscriber to a more pleasant state of mind if he is cross, and no opportunity should be lost to send the complainant off in good humor, with the assurance that the Company appreciates being informed of his dissatisfaction and will do everything possible to remedy it. If this cannot be done, tell him an investigation will at once be instituted and a report given him at its completion. This investigation should be thorough and every one, irrespective where they may be, knowing or having any connection with the trouble should be questioned and the report given to the subscriber at the earliest moment.

When reporting to the subscriber speak at first in a low tone, then, as the facts explaining the items of his complaint are brought out, raise your voice and speak in a firm tone, using the rising inflection, not forgetting that "the voice with the smile wins"; always be courteous and accomodating. Steer clear of giving the impression of routine, and take up each case upon its own individual merits. Every answer or explanation given being aimed at some definite item of complaint, usually strikes its mark.

If mistakes have to be admitted, do so with least number of words possible and in an apologetic tone, thereby modifying the effect of our error.

Complaints that come to the company in letter form are acknowledged at once by letter, then the letter is sent to the head of the sub-department concerned. Here it is given the same attention as a complaint received verbally. The letter with an explanatory report is sent back to the Traffic Inspection Department where an answer is either sent or given verbally to the complainant.

No man in the employ of the telephone company does more to mold public opinion, good or bad, than the Traffic Manager. The good will of a subscriber often depends as much upon his treatment when a complaint is made as does the prompt elimination of its cause.

Through this kind of skillful handling of complaints people who are known as cranks are turned into friends, and through them the company receives, indirectly, advertising that thousands of dollars could not purchase.

As a fitting slogan for all Traffic Managers I would suggest the following: Do all you can to make friends for the company.

"Good-Bye"

MR. TURNER'S article in the September number of *The* TELEPHONE REVIEW impressing on us the desirability of acknowledging the operator's repetition, brings to mind another point in operation, namely, a very apparent slacking off in the use of a final phrase, such as "Good-bye," to terminate a conversation. An article in the May number of *The* TELEPHONE REVIEW entitled, "More Politeness," by Mr. B. A. Crawford, dealt with this subject in a very conclusive manner. Mr. Crawford pointed out that none of us is so busy that we could afford to sacrifice politeness to gain a second or two by the omission of this final phrase. I have no reason to believe that we fail in this respect in our dealings with the Public, but I think that a trace of the old saw, "Familiarity breeds contempt," is more likely than not to influence our action when our duties require us to transact interdepartmental matters over the wire. The danger here is that we might sacrifice, eventually, cooperation for speed. As a matter of fact, by omitting the phrase we generally lose more time at the termination of the conversation waiting for the other fellow's "click," than if we had given and received a "Good-bye."

C. F. McCORD,
Local Commercial Manager,
Passaic, N. J.

Digitized by Google

Partial Summary of Outside Development Work, Planned or Under Way

LAKE AND PARK, DEMAREST, N. J.

Closter, N. J.

THE boroughs of Closter, Alpine, Demarest, Norwood, Harrington Park and Northvale in the northeastern part of Bergen County comprise the Closter central office district. This is a growing suburban section and there are a number of substantial homes throughout the district, interspersed with fine estates, especially along the bluff of the Palisades forming the eastern boundary of the district.

Distribution has for some time been effected by means of heavy runs of open wire or twisted pair extending beyond the ends of a few small aerial cables in the business section of Closter, immediately surrounding the central office.

Because of these limited facilities the growth has been limited in the past, but upon the completion of an estimate for placing about 7 miles of aerial cables containing from 25 to 200 pairs of conductors, the distributing plant will be adequate to care for a considerable growth throughout all parts of the district. It is estimated that the number of lines will be doubled in about a year after the completion of this construction.

Elizabeth, N. J.

IN the April number of *The* TELEPHONE REVIEW mention was made of the outside plant work throughout the Elizabeth district under two estimates appropriating a total of nearly $125,000.

There has been a steady growth in telephones throughout the Elizabeth, Roselle, Linden and Unionville central office districts, all served from the Elizabeth switchboard, so that the central office equipment now installed will not last longer than until the summer of 1914.

Plans have accordingly been prepared and an appropriation authorized for an addition to the switchboard which will bring the equipment up to a total of 3,500 lines corresponding to nearly 8,000 stations. Upon the completion of this work both the central office equipment and outside plant will be in condition to permit of the large growth expected from this popular section.

Passaic, N. J.

DURING the decade 1900-1910 the Passaic Exchange District, embracing Passaic, Nutley, Acquackanonk, Garfield, Lodi and Wallington, increased in population at the rate of about 100 per cent, due largely to the growth in manufacturing industries and to the increasing popularity of the district as a suburban residential territory. The growth in telephones has been even more rapid, an increase of 100 per cent having been obtained within slightly less than six years, with every indication of some such healthy and vigorous growth being maintained. In order that the outside plant facilities may be adequate to permit of this large continued growth with as little delay as practicable in connecting new contracts, plans have recently been approved for extensive additions and improvements to the feeder and distributing cable plant and an appropriation slightly in excess of $100,000 have been authorized.

The proposed work will improve the appearance of the aerial plant and the maintenance conditions in the central portion of the district by permitting the removal of a large number of open wires and twisted pairs which are involved with heavy tree growth and will extend adequate plant facilities into the outlying sections, many of which are building up rapidly and give promise of furnishing a considerable portion of the expected growth. A portion of the work will be completed this fall and the remainder will be actively pushed to completion as soon

CRICKET LODGE, HARRINGTON PARK.

Digitized by Google

as weather conditions will permit in the spring.

East Aurora, N. Y.

EXTENSIVE additions to the rural line plant in the northwestern portion of the East Aurora Central Office District are now being made under an appropriation recently authorized by the Executive Committee. In this fertile and prosperous agricultural section there has been for some time past a strong and increasing demand for Bell service.

The extension of Bell facilities in this section has, however, been delayed by circumstances entirely beyond the control of the company and it is only recently that a means has been found for supplying the service requested. The necessary construction work will now be pushed to completion as rapidly as possible. Plans have already been approved for over 10½ miles of pole line, which, together with the aerial wire work and station equipment, will involve an immediate expenditure of nearly $8,000.

Bedford District, Brooklyn

THE No. 1 common battery switchboard now serving the Bedford District was cut into service in the fall of 1907 with about 4,550 working lines. A new 2-story building of the most approved fireproof construction adjoining the old central office building had just previously been erected to accommodate this new board. The building was planned in such a way as to permit of subsequent stories being added to accommodate a second switchboard when the number of lines in the district should exceed 10,000.

The growth within the Bedford District has been very rapid, particularly in the southern portion of the district where building construction has been exceedingly active in anticipation of the extension of the Rapid Transit subway in Eastern Parkway. In keeping up with this growth, additions have been made to the Bedford switchboard which have brought the equipment up to the maximum capacity of the board, 10,500 lines, and it now becomes necessary to prepare for the installation of a second switchboard.

Estimates have recently been approved for the construction of an additional story on the present building at a cost of about $47,000, and for a new switchboard having a capacity of 10,500 lines and an initial equipment of 4,100 lines at a cost of about $117,000. There will be 41 regular operator positions in the initial equipment of the new board, which with the 91 regular operator positions on the existing board, will require in the neighborhood of 165 operators, supervisors, etc., during the busy periods of the day. While a number of the Manhattan central office buildings already house more than one switchboard and the ultimate plans provide for a number of similar cases in Brooklyn, Bedford is the first office in Brooklyn where this arrangement will be put into operation.

MAINE AVENUE AND PROSPECT STREET PASSAIC, N. J.

Prospect Central Office, Brooklyn

THE present Brooklyn central information desk was installed in the Prospect Central Office Building in the summer of 1911. This equipment consisted of 32 information operator positions, and at the time the desk was first cut in service, 20 operators were required to handle the information calls from the Brooklyn offices. The service has now grown to such an extent that there are 29 positions in use during the busy hours, and it is estimated that the entire 32 positions will be in service by the summer of 1914.

Plans have accordingly been prepared and an appropriation authorized for additional equipment to be installed ready for service next spring. This will consist of 20 additional positions, making a total of 52 available.

THE TELEPHONE IN ART.

Sculptures to Adorn the Arches at the Entrance of the New Synod Hall, Cathedral of St. John the Divine, New York.
Left to right—Astronomy, Music, Industrial Arts represented by the Telephone, Mathematics, Bookbinding, Mining Industry, Shoemaking.

Digitized by Google

Relay Bay

Suggested by F. L. Jackson, Assistant District Traffic Chief, Buffalo

THE above title for the short items page of *The* TELEPHONE REVIEW is appropriate for the following reasons:

A relay bay, as we know, is a certain designated place in a central office in which are assembled the subscriber line relays. In order for a subscriber to communicate with other subscribers it is necessary to pass through this bay.

As the short items page of *The* TELEPHONE REVIEW is the bay, or medium, in which items or communications of interest from our fellow workers are concentrated and disseminated, the aptness of the above title is obvious.

I am glad to note that we have gained new "subscribers" (contributors to this page) in the last issues of the magazine, and believe that it will soon be found necessary to provide "additional equipment" for the many "new lines" that will terminate in our "relay bay."

F. L. JACKSON,
Asst. Dist. Traffic Chief, Buffalo.

Serving the Public

On the evening of September 4 a heavy storm damaged a large aerial cable feeding the town of Chatham, N. J., and by midnight over 100 lines and stations were out of service; this comprised about 80% of the entire town.

Realizing the inconvenience that likely would follow and the demand for information on the part of subscribers who would be unable to reach Central, a large black-board, stating the cause of the trouble, was placed at the Chatham R. R. Station at 6 o'clock in the morning, where it could be seen by the large number of commuters, and a competent man was stationed beside it to answer inquiries and explain that the trouble would most likely be cleared by 10 o'clock a. m. This seemed to satisfy every one, as many expressions of appreciation were received, and no doubt some serious complaints were averted.—WM. J. CLEELAND, Wire Chief.

Asking for Advice

A subscriber called the Chief Operator and when she answered said, almost in one breath: "Say Chief, I have something to ask you; wonder if you can help me out—this is Mrs. ———. My sister's children are here from New York, two boys and two girls, the oldest girl is eight years old. They will be here for some time owing to some business which detains their mother in another city. In the rear of our house on another street live a family with two children, one a girl, and, Chief, it is a shame—but of course none of our business,—anyhow, we don't want the children to play together. Those children are always coming over in our yard. Now you know that isn't right if we don't want them. Don't you think it is a shame?—now what I want is a little advice from you—not knowing their name or number of street, can you tell me where their father works or do you think it would be better to go right up and ring the bell—when their father is home—and let him know about it?"—(Miss) L. MACMINN, Main Chief Operator, Albany.

JACK COOMBS, THE ATHLETICS' DISABLED PITCHER, IN THE HOSPITAL

ONE of the feature stories which the *New York World* printed in connection with the World's Series Games was about how Jack Coombs, "the 'Iron Man' of the Athletics and hero of two World's Series," knew of every play during the recent contest, and discussed them with his friends.

Coombs is laid up at the University Hospital in Philadelphia, and the story is best described in his own words as printed in the *World:* "I lay here in a specially built bed, a 38 pound weight suspended from my feet, and a 10 pound weight holding my head immovable. A telephone receiver was strapped to my ear."

The accompanying picture is reproduced by courtesy of the *World,* whose reporter talked with Coombs over the long distance line from New York and obtained the interview.

Dinner and Theatre Party

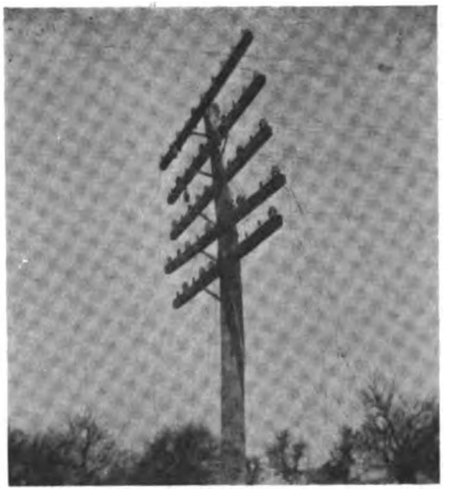
Saturday evening, September 20, many employees of the New York Telephone Company in the Mount Kisco District journeyed to the "big city" for the second of a series of dinner and theatre parties.

Among those who attended were: Wire Chief J. G. Ross, Mt. Kisco; Wire Chief B. C. Walton, Peekskill; Wire Chief V. S. Moore, Ossining; Asst. Wire Chief C. T. Daniels, Mt. Kisco; Deskman W. R. Rhuda, Mt. Kisco; Insideman F. Janesky, Mt. Kisco; Insideman J. Zelt, Peekskill; J. Pepper, "Heat Coil" J. M. Wilste, C. Murphy, H. Brown, J. J. Walsh, W. Reynolds, J. Mathews, J. Bogue, W. S. Bedell.

The committee in charge of the affair consisted of Messrs. Daniels and Walsh.

Digitized by Google

THE BLAST.



AFTER THE BLAST.

BUILDING STATE ROAD, HUDSON FALLS, N. Y.

Rapid Repair Work

In building the new state roads which are to be the great highways of travel in New York, the guardians of the telephone highways sometimes meet with interesting experiences and are called upon to perform emergency work which, while not as thrilling as some that have been described in *The* TELEPHONE REVIEW, call for as prompt action.

The accompanying illustrations show a portion of the Saratoga-Montreal toll lines and the damage done by a blast during the construction of the state road about two miles north of Hudson Falls. The blast was fired one morning about 9 o'clock, and about 12:30 all the wires were working again, after getting the men together and driving more than two miles to the scene of action. Out of 48 wires, 40 were damaged.—J. W. CHURCH, Wire Chief, Hudson Falls, N. Y.

Two From Riverside

A supervisor who had requested her operators to listen on a certain circuit noticed a few minutes later that a student had had her finger on a circuit a long while and asked if she was having trouble. She found that the student had taken her at her word and was "listening."

A subscriber called for "Riverside 7537-Royal Arms." When told there was no such number, he said someone had called up and left a message for him to call that number. We found that he wanted 7537 "Party R."—RIVERSIDE SUPERVISOR.

The Wrong End

When entering a drug store on 163rd Street, Manhattan, to use the telephone, I noticed an old lady in the booth working the hook switch like the handle of a pump, and shouting at the top of her voice that she could not hear. The trouble was that she had the wrong end of the receiver placed to her ear.—C. R. ALBRECHTSON, Plant Dept., Murray Hill.

A "New Talker"

A subscriber recently reported to the Chief Operator that she wanted a "new talker" as people were unable to hear her.—(Miss) T. SPRING, Desk Supervisor, Schenectady, N. Y.

Raising a Boycott

Recently a local subscriber, laboring under the impression that a boycott had been placed on his line, called the manager and wanted to know why we were "knocking" his calls. He stated that a friend had called his number and was put on a special operator who, after questioning him as to who it was he wanted, flashed in the original operator and told her to connect the number, disregarding the "knocking."

It developed that this subscriber's incoming calls were being intercepted to prevent his being called in error for a number similar to his own and that when the special operator got his friend calling this number, she verified the name and flashed in the "A" operator, telling her to connect the subscriber and disregard the "marking."—R. D. DONALDSON, Asst. Traffic Mgr., Newark.

Wanted Plumber, Not Subscriber

A call was received for a plumber who was not listed and Information inquired if he might not be doing business under some other name. The calling party became indignant, saying she knew the man had a telephone because she had seen it in his home, and demanded an instant connection.

Information: "I am sorry, but we have no subscriber at that address by the name of ———."

Calling Party: "What's the matter with you, Central? He ain't no subscriber, he's a plumber."—(Miss) E. HANKINSON, Operator, Fishkill, N. Y.

Neither Tardy Nor Absent in Two Years

Miss Dorothy Golden, a toll operator on the Ogdensburg Board, has been in the employ of the New York Telephone Co. nine years.

For two years, from July 1, 1911 to July 1, 1913, Miss Golden has not been tardy a minute, nor missed a day.

She is one of four sisters who have been employed by the company, the other three having joined the matrimonial ranks some time ago.—(MISS) NETTIE J. QUODLIN.

Receives Diamond Ring

Miss Loretta B. Weilhamer, our operating agent at Barre Center, N. Y., recently received a gift of a valuable diamond ring from the telephone subscribers of that village.

The ring was bought with money raised by voluntary subscriptions and was presented by Dr. Ogden, one of the leading physicians of the village, on behalf of the two-hundred-odd subscribers on Miss Weilhamer's return from a month's leave of absence.

In presenting the token Dr. Ogden said in part that the gift was simply a small attempt on the part of the subscribers to show their appreciation of the prompt and efficient service rendered at all times by Miss Weilhamer. —H. W. BENEDICT, District Traffic Chief, Rochester.

"Central, Open the Door"

An Italian patron used a public telephone in a receding door booth, and a few minutes after finishing his conversation and hanging up the receiver, he flashed back and said to the oper-

Digitized by Google

ator in broken English, "Central, I'm through. Will you please open the door?"—ENGLEWOOD OPERATOR.

Quick Installation of New Mayor's Telephone

About 9 A. M. September 10, we learned of Mayor Gaynor's death and ascertained that Col. Kline and his wife were visiting their daughter, Mrs. Mae Schell, on Ackroyd Road, Jamaica.

Salesman Cummings hastened to the house and was the first to inform Mrs. Schell of her father's elevation to the Mayoralty of Greater New York, Col. Kline having left for his office in ignorance of it. Mrs. Schell immediately signed a contract for telephone service, and fifty minutes later the instrument was installed and in working order. This exceptionally quick work was possible only by the plendid co-operation of the local Plant at Jamaica.

The first message over the new line was to Mayor Kline from his daughter.

When our installer reached Mrs. Schell's house, he found that she had just left to do her morning's marketing, and the maid servant would not permit him to enter the house. Without further delay the instrument was connected and placed on the veranda. Later it was properly installed inside, and when he learned the facts, Mayor Kline expressed his appreciation.

B. B. ANDREWS,
Local Commercial Mgr., Jamaica.

Buffalo Notes

Under the heading of "Unreasonable Requests" may be classed the indignant demand of one of our subscribers that the Company take out the telephone of another subscriber because he refused to send out for a neighbor.

Buffalo Traffic congratulates *The* TELEPHONE REVIEW on the splendid cover design for the September number. The halo of EFFICIENCY, FAITHFULNESS, and COURTESY which constantly hovers around our operators is indeed the foundation of the cardinal points of SERVICE.—F. L. JACKSON, Asst. Dist. Traffic Chief, Buffalo.

Aphorisms

"A man without ambition is like a busted bank,—all building and no assets."

"When precedent and progress clash, drop precedent."

"It is better to rise with the lark than to go home on one."

—H. BELL, Local Com'l Manager, Englewood.

A Popular "Fan"

Although he did not enter the contest until three weeks after it began, William H. Hogan, troubleman at the Tupper Exchange in Buffalo, attended the World's Series this year at the expense of the Buffalo *Evening News* as one of the most popular "fans" in that city. He received 211,990 votes, and was ninth in the list of

WM. H. HOGAN, TROUBLEMAN, BUFFALO.

twenty whose traveling expenses, board and all incidentals were paid by the newspaper. Among the contestants were some of the most prominent men in the city, but Mr. Hogan's friends among the employees and subscribers of the New York Telephone Co. worked for him like beavers, handing him bunches of coupons when they would meet him on the street.

New Exchanges

The North Collins central office was opened on September 6, 1913, with 4 subscriber lines, 8 subscriber stations in service, 2 trunk lines to Gowanda and 3 trunk lines to Hamburg.

The Youngstown central office was opened on September 10, with 25 subscriber lines, 38 subscriber stations and 3 trunk lines to Lewiston.

Talked Through the "Receiver"

Did you ever talk through your "receiver?" I did the other day. Saved me a trip to my neighbor's telephone. 'Twas like this. Knocked my desk set from its abiding place. Soon tried to pass a call. Got Central, but she couldn't hear me. Transmitter was stuck, it seemed. Sudden inspiration! Asked for Chief Operator through the receiver. She answered. By a series of shifts of receiver from ear to mouth, reported the case. Wire Chief George Hill got a correct diagnosis. Hill said the stunt ought to be widely copied.—F. L. BROWN, Commercial Dept., Poughkeepsie.

The Facile Commercial Man

I WAS driving the company's auto into the country on a business trip when a farmer's horse that had strayed out of his pasture became frightened and dashed down the road.

I soon realized that if I kept on the horse would do likewise, so I turned back and drove up to the house and explained the circumstances to the farmer's wife. She said she would have to go after it immediately, and I offered to take her in my car. It was her first automobile ride. (I believed her when she told me.)

We met the horse strolling back, but at sight of the car (or was it the occupants?) it again took fright. Finally, I stopped the car, we walked down the road a pace, and soon the animal was captured. We had some difficulty in getting it by the car, but this was also overcome and it was safely returned to its pasture.

I was taking the farmer's wife home again when on our way we encountered her husband. He instantly demanded an explanation. My embarrassment made me speechless, but his wife soon explained the situation to his satisfaction. I was much relieved when he shook hands with me and inquired my name.

Upon my presenting him with my business card, he said: "Well, I might have known you were one of those telephone men."

While we were talking, his wife filled a 25 pound flour sack with fine russet apples, which she gave me.

Thus a pleasant friendship began, which sometime may have a business significance.

H. C. FOLLETT,
Local Manager, LeRoy, N. Y.

[Evidently Mr. Follett did not intend to be outdone by the agent at Harrison, N. Y., described by Miss Wellstood in our July issue.—EDITOR.]

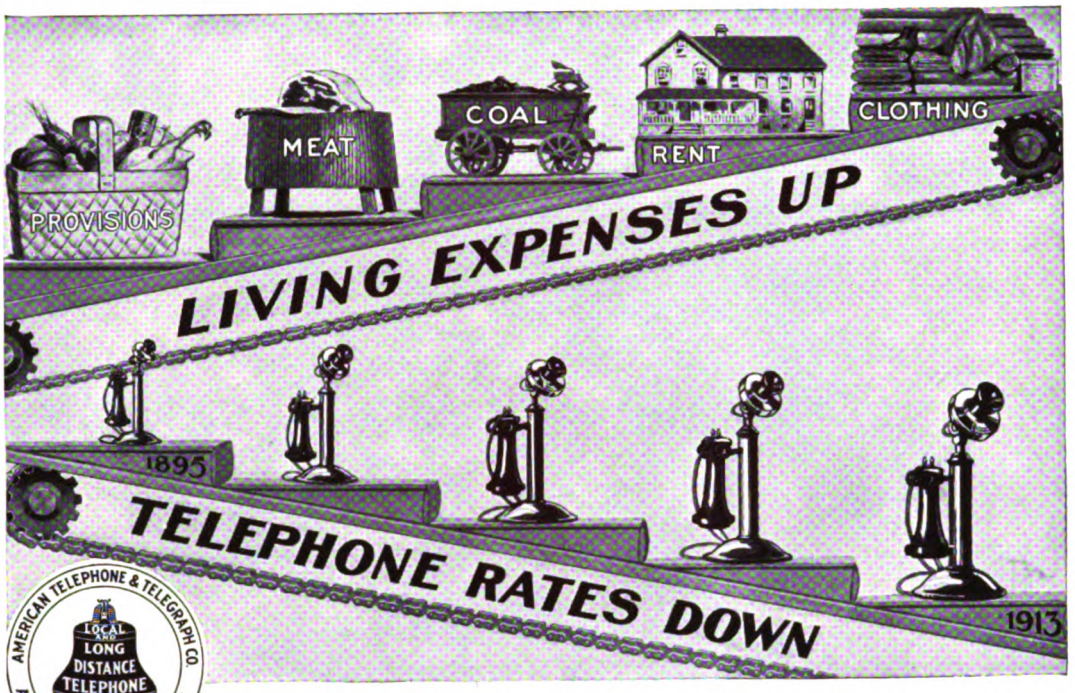
Bowling Season Opens in Buffalo

With the advent of fall, bowling again comes into vogue as the most popular sport. The following teams are entered in the Buffalo Telephone Bowling League: Assignment, Auditor, Traffic, Commercial, Engineers, Cable, Equipment-Supply, Construction and Maintenance.

The season opened on October 3, and will continue until December 12, games being rolled weekly.

Bowling has always been a popular sport among Buffalo telephone men, and judging from the records of previous seasons, some spirited competition and high scores may be expected.

Digitized by Google



Economy of the Bell System

Consider this significant fact: While most of the necessaries of life have gone up, the price of telephone service, which is one of the essential factors in our commercial and social life, has moved steadily downward.

Although a pound of these necessities still contains but sixteen ounces, the telephone user has been getting more and more service for less money.

On the average, the people of this country pay 49% more today for food, fuel and clothing than they did in 1895. Since then, the decrease in the average rates for telephone service has been more than one-half.

At the same time, the efficiency and value of the service to the subscriber has vastly increased. Today he can talk to an average of five times as many persons in each exchange as he could eighteen years ago.

This is the inevitable result of the comprehensive policy of the Bell System, which brings together the associated Bell companies and the communities they serve.

Through the very size and efficiency of their organization they accomplish improvements and effect economies which give the greatest service at the lowest rates.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google

Start Your Day's Work with the Telephone

IF YOU start your day's work with ***the Telephone,*** then continue to let it save time and energy for you throughout the day, you are ***bound*** to increase your productive time, develop your capacity for work, and get quicker results.

Use your ***Telephone*** to make the necessary appointments, close sales, give or countermand orders, bring information, or take your messages here and there in and out of the city.

The more you let your Telephone help you early in the day, the greater will be your saving in lost motion and wasted energy later.

Why Not Start TODAY'S Work with the Telephone?

AMERICAN TELEPHONE & TELEGRAPH CO. AND ASSOCIATED COMPANIES — LOCAL AND LONG DISTANCE TELEPHONE — BELL SYSTEM

NEW YORK TELEPHONE COMPANY

Digitized by Google

THE TELEPHONE REVIEW

Vol·4·No·11 November·1913

Digitized by Google

THANKSGIVING—All the Nations of the World Rejoice and Give Thanks for the Telephone

Human Factors in Good Service

THERE are three parties to each telephone connection — the party who calls, the trained operator, and the party who answers.

The telephone user shares with the operator the responsibility for good service.

Accuracy in calling, promptness in answering, clear and deliberate talking and patience on the part of the user and the operator, are essentials of good service.

In making 26,000,000 calls daily, millions of telephone users become integral parts in the Bell system and contribute to the success of the service.

Every Bell Telephone is a Long Distance Station

NEW YORK TELEPHONE COMPANY

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV — NEW YORK, NOVEMBER, 1913 — NUMBER 11

The TELEPHONE REVIEW
ISSUED MONTHLY.

Published by the
NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor.

VOL. IV NOVEMBER, 1913. No. 11

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

The Birth and Babyhood of the Telephone

UNDOUBTEDLY the most important contribution to the literature of telephony that has appeared in many years, and one that always will stand as the sole companion piece to Alexander Graham Bell's personal account of how he invented the telephone, is the address which we print as our leading article this month by Thos. A. Watson, who, was Mr. Bell's assistant and is the only other person in the world who could write from actual experience an account of the birth and babyhood of the telephone.

This address was first delivered by Mr. Watson at the meeting of The Telephone Society of New York, held January 22, 1913. Its publication has been delayed to permit of its delivery at the Convention of The Telephone Pioneers of America last month, and elsewhere.

The illustrations are from original photographs and drawings, and in many cases from photographs of the original apparatus invented by Mr. Bell and made by Mr. Watson, which have been taken especially for *The* TELEPHONE REVIEW.

The reading of this article, however, cannot equal the interest and pleasure experienced by those who heard its masterly delivery from the platform by Mr. Watson.

Thanksgiving

All the Nations of the World Rejoice and Give Thanks for the Telephone

THANKSGIVING Day is approaching. The President of the United States and the Governors of the several states have issued proclamations calling upon all the people to observe the last Thursday in this month as a holiday for the giving of thanks for the blessings that have been enjoyed during the past year.

This is purely an American custom. However we may differ from our ancestors in the observance of the day, the telephone has at least been the means of reuniting families and friends regardless of distance and weather, and this it does, too, without being followed by the "tummy-ache."

The old fashioned way still has its charms, when after church—

"Over the river and through the wood,
To Grandfather's house we go,
The horse knows the way
To carry the sleigh,
Through the white and drifted snow.

"Over the river and through the wood,
Oh, how the wind does blow!
It stings the toes
And bites the nose,
As over the ground we go.

"Over the river and through the wood,
Trot fast my dappled gray!
Spring over the ground,
Like a hunting hound,
For this is Thanksgiving Day.

"Over the river and through the wood,
And straight through the barnyard gate!
We seem to go,
Extremely slow,
It is so hard to wait!

"Over the river and through the wood,
Now Grandmother's cap I spy,
Hurrah for the fun!
Is the pudding done?
Hurrah for the pumpkin pie!"

Perhaps the difference in the way in which the day is observed may be due to some extent to the difference in the kind of weather we have on Thanksgiving Day, for we do not seem to have the old fashioned weather described in the above verses any more than we have the old fashioned dinner parties.

It is not so much the observance of the day, however, as of something that we have to be thankful for, that we would speak.

The telephone has reached its highest development and use in the United States under the wise and efficient one universal system policy of Mr. Theodore N. Vail and his associates, to whom, following the invention of the telephone by Dr. Bell, all the world is indebted.

Our cover this month tells the story, and its application is world-wide.

An Illustration and a Warning

TELEPHONE Courtesy, which has been urged by the Company for so many years, is not only being observed but is being expected more and more by the public. The following clipping from the New York *Times* of October 28 is both an illustration and a warning. Let us hope that there is not in the Telephone Company a single employee who would fail under the test.

Bad 'Phone Manners Lost Order

A certain textile house in this city lost a $3,500 order yesterday through a display of bad telephone manners on the part of the girl in charge of the house switchboard. According to the buyer, he called up this house rather early in the business morning and asked to speak to the manager. The girl had evidently been instructed to take the names of persons calling, but had not been told how to do it. Instead of asking, "May I have your name?" or "Who is speaking, please?" she demanded sharply, "Who are you?" To this the buyer said he answered, "I'm a man who is through buying from your house as long as you are there." He said he was not going to ask her discharge, but that he was going to buy somewhere else until the house got a girl who knew that "the voice with the smile wins."

The Telephone and Elections

IT would be very timely, but it is entirely unnecessary to comment at any length upon the part the telephone played in connection with the recent elections.

In previous issues about election time, we have printed articles which were copiously illustrated, describing in detail the extensive use made of the telephone for political purposes, especially during the campaigns and in gathering and reporting election returns.

Let it suffice, therefore, for us merely to draw attention once more to the invaluable aid the telephone has been both in electing and in defeating candidates for political office and in the conduct of the machinery of the elections.

Digitized by Google

The Birth and Babyhood of the Telephone

By Thomas A. Watson

An Address First Delivered before the Telephone Society of New York, January 22, 1913,—Delivered before the Third Annual Convention of the Telephone Pioneers of America at Chicago, October 17, 1913, etc.

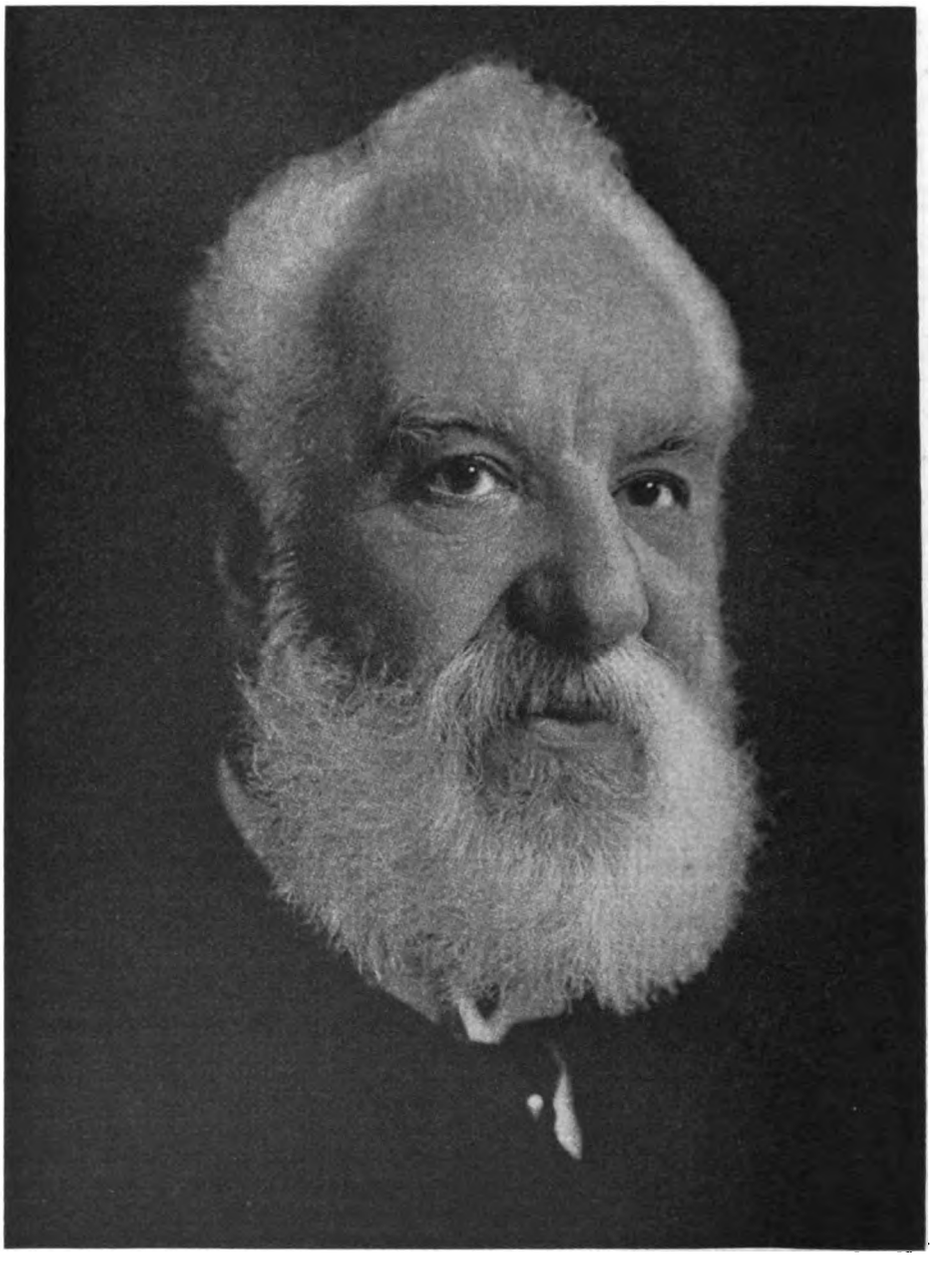
Thomas A Watson

I AM to speak to you of the birth and babyhood of the telephone, and something of the events which preceded that important occasion. These are matters that must seem to you ancient history, in fact, they seem so to me, although the events all happened less than 40 years ago, in the years 1874 to 1880.

The occurrences of which I shall speak, lie in my mind as a splendid drama, in which it was my great privilege to play a part. I shall try to put myself back into that wonderful play, and tell you its story from the same attitude of mind I had then—the point of view of a mere boy, just out of his apprenticeship as an electro-mechanician, intensely interested in his work, and full of boyish hope and enthusiasm. Therefore, as it must be largely a personal narrative, I shall ask you to excuse my many "Is" and "mys" and to be indulgent if I show how proud and glad I am that I was chosen by the fates to be the associate of Alexander Graham Bell, to work side by side with him day and night through all these wonderful happenings that have meant so much to the world.

The Williams Electrical Workshop

I realize now what a lucky boy I was, when at 13 years of age I had to leave school and go to work for my living, although I didn't think so at that time. There's a "tide in the affairs of men," you know, and that was the beginning of its flood in my life, for after trying several vocations—clerking, bookkeeping, carpentering, etc.—and finding them all unattractive, I at last found just the job that suited me in the electrical workshop of Charles Williams, at 109 Court Street, Boston—one of the best men I have ever known. Better luck couldn't befall a boy than to be brought so early in life under the



DR. ALEXANDER GRAHAM BELL

Digitized by Google

THOMAS A. WATSON IN 1874

influence of such a high-minded gentleman as Charles Williams.

I want to say a few words about my work there, not only to give you a picture of such a shop in the early '70s, but also because in this shop the telephone had its birth and a good deal of its early development.

I was first set to work on a hand lathe turning binding posts for $5 a week. The mechanics of to-day with their automatic screw machines, hardly know what it is to turn little rough castings with a hand tool. How the hot chips used to fly into our eyes! One day I had a fine idea. I bought a pair of 25 cent goggles, thinking the others would hail me as a benefactor of mankind and adopt my plan. But they laughed at me for being such a sissy boy and public opinion forced me back to the old time honored plan of winking when I saw a chip coming. It was not an efficient plan for the chip usually got there first. There was a liberal education in it for me in manual dexterity. There was no specializing in these shops at that time. Each workman built everything there was in the shop to build, and an apprentice also had a great variety of jobs, which kept him interested all the time, for his tools were poor and simple and required lots of thought to get a job done right.

Studies and Experiments

There were few books on electricity published at that time. Williams had copies of most of them in his show case, which we boys used to read noons, but the book that interested me most was Davis' Manual of Magnetism, published in 1847, a copy of which I made mine for 25 cents. If you want to get a good idea of the state of the electrical art at that time, you should read that book. I found it very stimulating and that same old copy in all the dignity of its dilapidation has a place of honor on my book shelves today.

My promotion to higher work was rapid. Before two years had passed, I had tried my skill on about all the regular work of the establishment—callbells, annunciators, galvanometers, telegraph keys, sounders, relays, registers and printing telegraph instruments.

Individual initiative was the rule in Williams' shop—we all did about as we pleased. Once I built a small steam engine for myself during working hours, when business was slack. No one objected. That steam engine,

MOSES G. FARMER
(From an old print)

by the way, was the embryo of the biggest shipbuilding plant in the United States today.

Such was the electrical shop of that day. Crude and small as they were, they were the forerunners of the great electrical works of today. In them were being trained the men who were among the leaders in the wonderful development of applied electricity which began soon after the time of which I am to speak. Williams, although he never had at that time more than 30 or 40 men working for him, had one of the largest and best fitted shops in the country. I think the Western Electric shop at Chicago was the only larger one. That was also undoubtedly better organized and did better work than Williams'. When a piece of machinery built by the Western Electric came into our shop for repairs, we boys always used to admire the superlative excellence of the workmanship.

Experiences with Inventors

Besides the regular work at Williams', there was a constant stream of wild-eyed inventors, with big ideas in their heads and little money in their pockets, coming to the shop to have their ideas tried out in brass and iron. Most of them had an "angel" whom they had hypnotized into paying the bills. My enthusiasm, and perhaps my sympathetic nature, made me a favorite workman with those men of visions, and in 1873-74 my work had become largely making experimental apparatus for such men. Few of their ideas ever amounted to anything, but I liked to do the work, as it kept me roaming in fresh fields and pastures new all the time. Had it not been, however, for my youthful enthusiasm—always one of my chief assets—I fear this experience would have made me so sceptical and cynical as to the value of electrical inventions that my future prospects might have been injured.

I remember one limber-tongued patriarch who had induced some men to subscribe $1,000 to build what he claimed to be an entirely new electric engine. I made much of it for him. There was nothing new in the engine but he intended to generate his electric current in a series of iron tanks the size of trunks, to be filled with nitric acid with the usual zinc plates suspended therein. When the engine was finished and the acid poured into the tanks for the first time, no one waited to see the engine run, for inventor, "angel," and workmen, all tried to see who could get out of the shop quickest. I won the race as I had the best start.

ALEXANDER GRAHAM BELL IN 1875

Digitized by Google

THOMAS SANDERS IN 1878, AT THE TIME HE WAS THE SOLE FINANCIAL BACKER OF THE TELEPHONE

I suppose there is just such a crowd of crude minds still besieging the work shops, men who seem incapable of finding out what has been already done, and so keep on year after year, thrashing old straw.

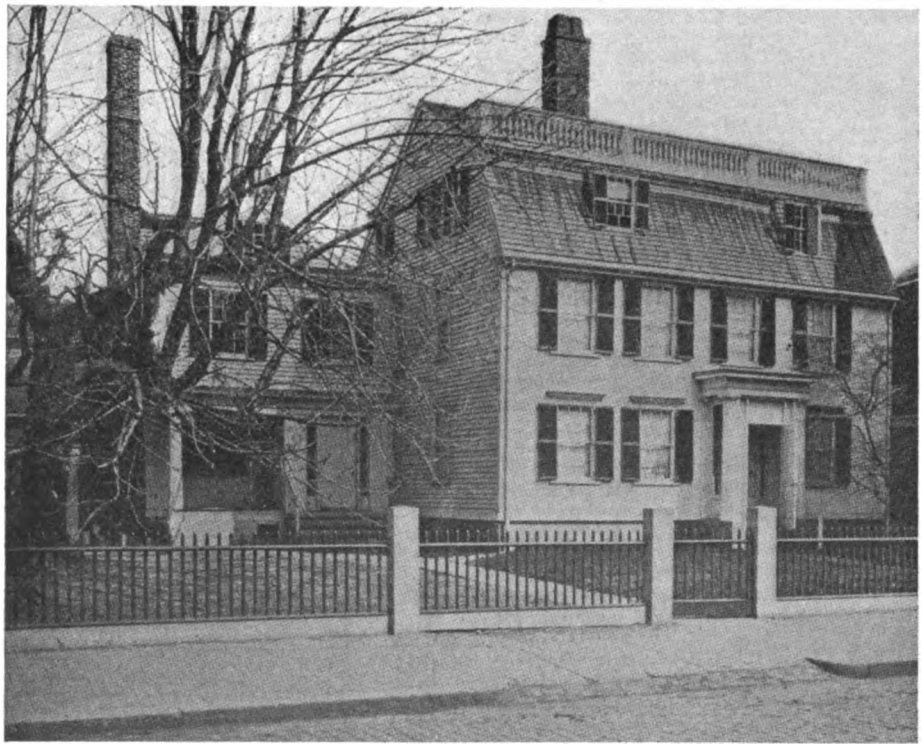
The "Harmonic Telegraph"

All the men I worked for at that time were not of that type. There were a few very different. Among them, dear old Moses G. Farmer, perhaps the leading practical electrician of that day. He was full of good ideas, which he was constantly bringing to Williams to have worked out. I did much of his work and learned from him more about electricity than ever before or since. He was electrician at that time for the United States Torpedo Station at Newport, Rhode Island, and in the early winter of 1874, I was making for him some experimental torpedo exploding apparatus. That apparatus will always be connected in my mind with the telephone, for one day when I was hard at work on it, a tall, slender, quick-motioned man with pale face, black side whiskers and drooping mustache, big nose and high sloping forehead crowned with bushy, jet black hair, came rushing out of the office and over to my work bench. It was Alexander Graham Bell whom I saw then for the first time. He was bringing to me a piece of mechanism which I had made for him under instructions from the office. It had not been made as he had directed and he had broken down the rudimentary discipline of the shop in coming directly to me to get it altered. It was a receiver and a transmitter of his "Harmonic Telegraph," an invention of his with which he was then endeavoring to win fame and fortune. It was a simple affair by means of which, utilizing the law of sympathetic vibration, he expected to send six or eight Morse messages on a single wire at the same time, without interference.

Although most of you are probably familiar with the device, I must, to make my story clear, give you a brief description of the instruments, for though Bell never succeeded in perfecting his telegraph, his experimenting on it led to a discovery of the highest importance.

The essential parts of both transmitter and receiver were an electro magnet and a flattened piece of steel clock spring. The spring was clamped by one end to one pole of the magnet, and had its other end free to vibrate over the other pole. The transmitter had, besides this, make-and-break points like an ordinary vibrating bell which, when the current was on, kept the spring vibrating in a sort of nasal whine, of a pitch corresponding to the pitch of the spring. When the signalling key was closed, an electrical copy of that whine passed through the wire and the distant receiver. There were, say, six transmitters with their springs tuned to six different pitches and six receivers with their springs tuned to correspond. Now, theoretically when a transmitter sent its electrical whine into the line wire, its own faithful receiver spring at the distant station would wiggle sympathetically but all the others on the same line would remain coldly quiescent. Even when all the transmitters were whining at once through their entire gamut, making a row as if all the miseries this world of trouble ever produced were concentrated there, each receiver spring along the line would select its own from that sea of troubles and ignore all the others. Just see what a simple, sure-to-work invention this was; for just break up those various whines into the dots and dashes of Morse messages and one wire would do the work of six, and the "Duplex" telegraph that had just been invented would be beaten to a frazzle. Bell's reward would be immediate and rich, for the "Duplex" had been bought by the Atlantic and Pacific Telegraph Company, giving them a great advantage over their only competitor, the Western Union Company, and the latter would of course buy Bell's invention and his financial problems would be solved.

All this was, as I have said, theoretical, and it was mighty lucky for Graham Bell that it was, for had his harmonic telegraph been a well behaved apparatus that always did what its parent wanted it to do, the speaking telephone might never have emerged from a certain marvelous conception, that had even then been surging back of Bell's high forehead for two or three years. What that conception was, I soon learned, for he couldn't help speaking about it, although his friends tried to hush it up. They



HOME OF THOMAS SANDERS, SALEM, MASS., WHERE MR. BELL EXPERIMENTED FOR THREE YEARS WHILE TEACHING SCHOOL—1872-1874

Digitized by Google

didn't like to have him get the reputation of being visionary, or—something worse.

To go on with my story; after Mr. Farmer's peace making machines were finished, I made half a dozen pairs of the harmonic instruments for Bell. He was surprised, when he tried them to find that they didn't work as well as he expected. The cynical Watson wasn't at all surprised for he had never seen anything electrical yet that worked at first the way the inventor thought it would. Bell wasn't discouraged in the least and a long course of experiments followed which gave me a steady job that winter and brought me into close contact with a wonderful personality that did more to mould my life rightly than anything else that ever came into it.

I became mightily tired of those "whiners" that winter. I called them by that name, perhaps, as an inadequate expression of my disgust with their persistent perversity, the struggle with which soon began to take all the joy out of my young life, not being endowed with the power of Macbeth's weird sisters to

"Look into the seeds of time,
And say which grain will grow and
which will not."

Let me say here, that I have always had a feeling of respect for Elisha Gray, who, a few years later, made that harmonic telegraph work, and vibrate well-behaved messages, that would go where they were sent, without fooling with every receiver on the line.

Most of Bell's early experimenting on the harmonic telegraph was done in Salem at the home of Mrs. George Sanders, where he resided for several years, having charge of the instruction of her deaf nephew. The present Y. M. C. A. building is on the site of that house. I would occasionally work with Bell there but most of his experimenting in which I took part was done in Boston.

Bell's Theory of Transmitting Speech

Mr. Bell was very apt to do his experimenting at night, for he was busy during the day at the Boston University, where he was Professor of Vocal Physiology, especially teaching his father's system of visible speech, by which a deaf mute might learn to talk —quite significant of what Bell was soon to do in making mute metal talk. For this reason I would often remain at the shop during the evening to help him test some improvement he had had me make on the instruments.

One evening when we were resting from our struggles with the apparatus, Bell said to me: "Watson, I want to tell you of another idea I have, which I think will surprise you." I listened, I suspect, somewhat languidly, for I must have been working that day about sixteen hours with only a short nutritive interval, and Bell had already given me during the weeks we had worked together, more new ideas on a great variety of subjects, including visible speech, elecution and flying machines, than my brain could assimilate, but when he went on to say that he had an idea by which he believed it would be possible to talk by telegraph, my nervous system got such a shock that the tired feeling vanished. I have never forgotten his exact words; they have run in my mind ever since like a mathematical formula. "If," he said, "I could make a current of electricity vary in intensity, precisely as the air varies in density during the production of a sound, I should be able to transmit speech telegraphically." He then sketched for me an instrument that he thought would do this, and we discussed the possibility of constructing one. I did not make it; it was altogether too costly and the chances of its working too uncertain, to impress his financial backers—Mr. Gardiner

THE BIRTHPLACE OF THE TELEPHONE. 109 COURT ST., BOSTON.—ON THE TOP FLOOR OF THIS BUILDING, IN 1875, PROF. BELL CARRIED ON HIS EXPERIMENTS AND FIRST SUCCEEDED IN TRANSMITTING SPEECH BY ELECTRICITY.

GARDINER G. HUBBARD IN 1876

G. Hubbard and Mr. Thomas Sanders —who were insisting that the wisest thing for Bell to do was to perfect the harmonic telegraph; then he would have money and leisure enough to build air castles like the telephone.

June 2, 1875

I must have done other work in the shop besides Bell's during the winter and spring of 1875, but I cannot remember a single item of it. I do remember that when I was not working for Bell I was thinking of his ideas. All through my recollection of that period runs that nightmare—the harmonic telegraph, the ill working of which got on my conscience, for I blamed my lack of mechanical skill for the poor operation of an invention apparently so simple. Try our best, we could not make that thing work rightly, and Bell came as near to being discouraged as I ever knew him to be.

But this spring of 1875, was the dark hour just before the dawn.

If the exact time could be fixed, the date when the conception of the undulatory or speech-transmitting current took its perfect form in Bell's mind, would be the greatest day in the history of the telephone, but certainly June 2, 1875, must always rank next; for on that day the mocking fiend inhabiting that demonic telegraph apparatus, just as a now-you-see-it-and-now-you-don't sort of a satanic joke, opened the curtain that hides from man great Nature's secrets and gave us a glimpse as quick as if it were through the shutter of a snap-shot camera, into that treasury of things not yet discovered. That imp didn't do this in any kindly, helpful spirit—any inventor knows he isn't that kind of a being—he just meant to tantalize and prove that a man is too stupid to grasp a secret, even if it is revealed to him. But he hadn't properly esti-

Digitized by Google

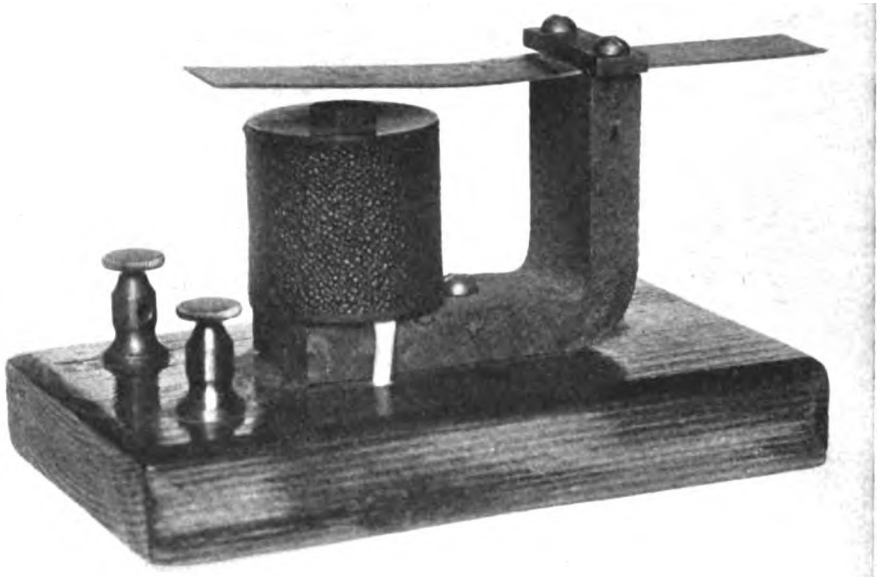
mated Bell, though he had probably sized me up all right. That glimpse was enough to let Bell see and seize the very thing he had been dreaming about and drag it out into the world of human affairs.

The Telephone Born

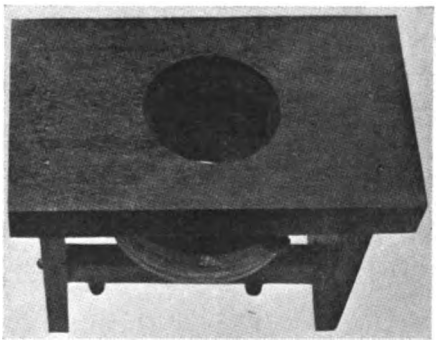
Coming back to earth, I'll try and tell you what happened that day. In the experiments on the harmonic telegraph, Bell had found that the reason why the messages got mixed up was inaccuracy in the adjustment of the pitches of the receiver springs to those of the transmitter. Bell always had to do this tuning himself, as my sense of pitch and knowledge of music were quite lacking—a faculty (or lackulty) which you will hear later became quite useful. Mr. Bell was in the habit of observing the pitch of a spring by pressing it against his ear while the corresponding transmitter in a distant room was sending its intermittent current through the magnet of that receiver. He would then manipulate the tuning screw until that spring was tuned to accord with the pitch of the whine coming from the transmitter. All this experimenting was carried on in the upper story of the Williams building where we had a wire connecting two rooms perhaps sixty feet apart looking out on Court Street.

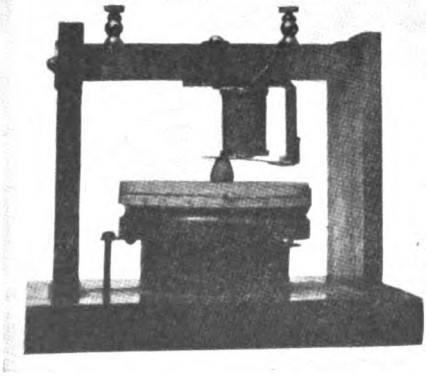
Realization

On the afternoon of June 2, 1875, we were hard at work on the same old job, testing some modification of the instruments. Things were badly out of tune that afternoon in that hot garret, not only the instruments, but, I fancy, my enthusiasm and my temper, though Bell was as energetic as ever. I had charge of the transmitters as usual, setting them squealing one after the other, while Bell was retuning the receiver springs one by one, pressing them against his ear as I have described. One of the transmitter springs I was attending to stopped vibrating and I plucked it to start it again. It didn't start and I kept on plucking it, when suddenly I heard a shout from Bell in the next room, and then out he came with a rush, demanding, "What did you do then? Don't change anything! Let me see?" I showed him. It was very simple. The make-and-break points of the transmitter spring I was trying to start had become welded together, so that when I snapped the spring the circuit had remained unbroken while that strip of magnetized steel by its vibration over the pole of its magnet, was generating that marvelous conception of Bell's—a current of electricity that varied in intensity precisely as the air was varying in density within hearing distance of that spring. That undulatory current had passed through the connecting wire to the distant receiver which, fortunately, was a mechanism that could transform that current back into an extremely faint echo of the sound of the vibrating spring that had generated it, but what was still more fortunate, the right man had that mechanism at his ear during that fleeting moment, and instantly recognized the transcendent importance of that faint sound thus electrically transmitted. The shout I heard and his excited rush into my room were the result of that recognition. The speaking telephone was born at that moment. Bell knew perfectly well that the mechanism that could transmit all the complex vibrations of one sound could do the same for any sound, even that of speech. That experiment showed him that the complex apparatus he had thought would be needed to accomplish that long dreamed result was not at all necessary, for here was an extremely simple mechanism operating in a perfectly obvious way, that could do it perfectly. All the experimenting that followed that discovery, up to the time the telephone was put into practical use was largely a matter of working out the details. We spent a few hours verifying the discovery, repeating it with all the differently tuned springs we had, and before we parted that night Bell gave me directions for making the first electric speaking telephone. I was to mount a small drum head of gold beater's skin over one of the receivers, join the center of the drumhead to the free end of the receiver spring and arrange a mouthpiece over the drumhead to talk into. His idea was to force the steel spring to follow the vocal vibrations and generate a current of electricity that would vary in intensity as the air varies in density during the utterance of speech sounds. I followed these directions and had the instrument ready for its trial the very next day.



PROF. BELL'S VIBRATING REED





ALEXANDER GRAHAM BELL'S FIRST TELEPHONE

Digitized by Google

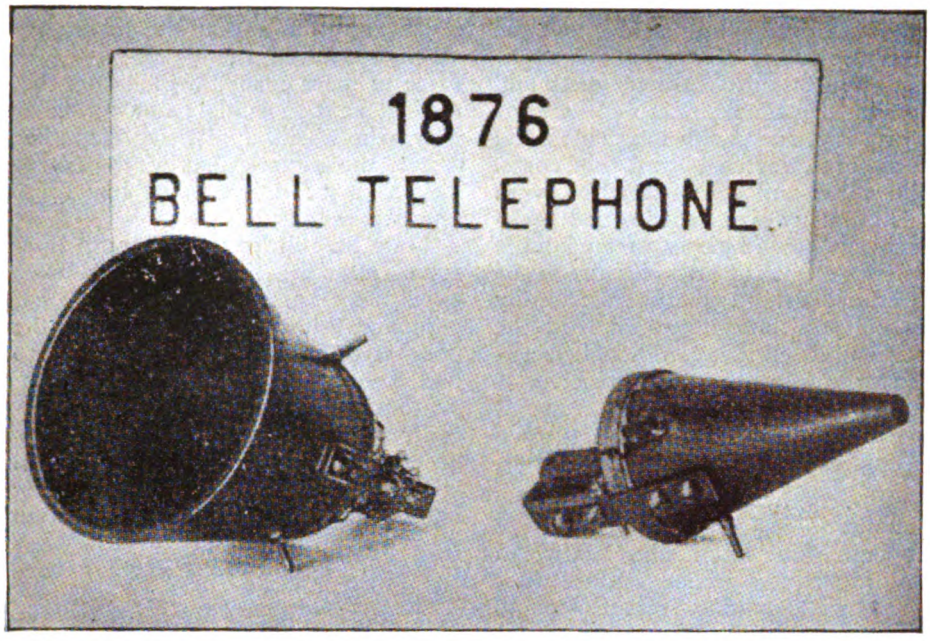


ILLUSTRATION OF TELEPHONE APPARATUS PATENTED IN 1876 BY PROF. BELL, PHOTOGRAPHED FROM THE ORIGINAL INSTRUMENTS IN THE PATENT OFFICE AT WASHINGTON.

I rushed it, for Bell's excitement and enthusiasm over the discovery had aroused mine again, which had been sadly dampened during those last few weeks by the meagre results of the harmonic experiments. I made every part of that first telephone myself, but I didn't realize while I was working on it what a tremendously important piece of work I was doing.

The First Telephone Line

The two rooms in the attic were too near together for the test, as our voices would be heard through the air, so I ran a wire especially for the trial from one of the rooms in the attic down two flights to the third floor where Williams' main shop was, ending it near my work bench at the back of the building. That was the first telephone line. You can well imagine that both our hearts were beating above the normal rate, while we were getting ready for the trial of the new instrument that evening. I got more satisfaction from the experiment than Mr. Bell did, for shout my best I could not make him hear me, but I could hear his voice and almost catch the words. I rushed up stairs and told him what I had heard. It was enough to show him that he was on the right track, and before he left that night he gave me directions for several improvements in the telephones I was to have ready for the next trial.

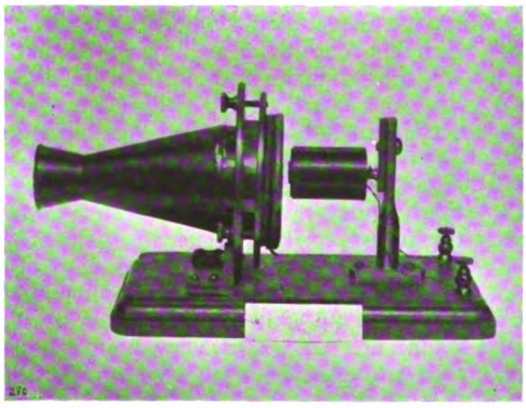
I hope my pride in the fact that I made the first telephone, put up the first telephone wire and heard the first words ever uttered through a telephone, has never been too ostentatious and offensive to my friends, but I am sure that you will grant that a reasonable amount of that human weakness is excusable in me. My pride has been tempered to quite a bearable degree by my realization that the reason why I heard Bell in that first trial of the telephone and he did not hear me, was the vast superiority of his strong, vibratory tones over any sound my undeveloped voice was then able to utter. My sense of hearing, however, has always been unusually acute, and that might have helped to determine this result.

The building where these first telephone experiments were made is still in existence. It is now used as a theater. The lower stories have been much altered, but that attic is still quite unchanged and two weeks ago I stood on the very spot where I snapped those springs and helped test the first telephones thirty-seven years and seven months before.

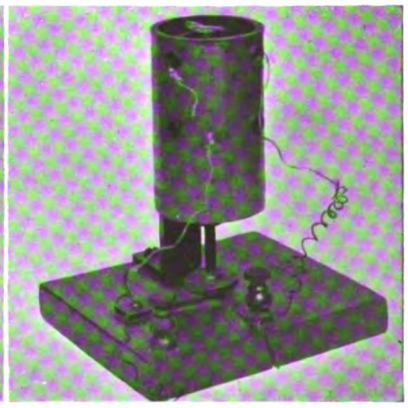
Mr. Watson Heard the First Sentence Ever Spoken Over the Telephone

Of course, in our struggle to expel the imps from the invention, an immense amount of experimenting had to be done, but it wasn't many days before we could talk back and forth and hear each other's voice. It is, however, hard for me to realize now that it was not until the following March that I heard a complete and intelligible sentence. It made such an impression upon me that I wrote that first sentence in a book I have always preserved. The occasion had not been arranged and rehearsed as I suspect the sending of the first message over the Morse telegraph had been years before, for instead of that noble first telegraphic message—"What hath God wrought?" the first message of the telephone was: "Mr. Watson, please come here, I want you." Perhaps, if Mr. Bell had realized that he was about to make a bit of history, he would have been prepared with a more sounding and interesting sentence.

Soon after the first telephones were made, Bell hired two rooms on the top floor of an inexpensive boarding house at No. 5 Exeter Place, Boston; since demolished to make room for mercantile buildings. He slept in one room; the other he fitted up as a laboratory. I ran a wire for him between the two rooms and after that time practically all his experimenting was done there. It was here one evening when I had gone there to help him test some improvement and to spend the night with him, that I heard the first complete sentence I have just told you about. Matters began to move more rapidly and during the summer of 1876, the telephone was talking so well that one didn't have to ask the other man to say it over again more than three or four times before one could understand quite well, if the sentences were simple.



PROF. BELL'S ORIGINAL CENTENNIAL MAGNETO TRANSMITTER



PROF. BELL'S ORIGINAL CENTENNIAL RECEIVER

Digitized by Google

The Centennial Exposition

This was the year of the Centennial Exposition at Philadelphia, and Bell decided to make an exhibit there. I was still working for Williams, and one of the jobs I did for Bell was to construct a telephone of each form that had been devised up to that time. These were the first nicely finished instruments that had been made. There had been no money nor time to waste on polish or non-essentials. But these Centennial telephones were done up in the highest style of the art. You could see your face in them. These aristocratic telephones worked finely, in spite of their glitter, when Sir William Thompson tried them at Philadelphia that Summer. I was as proud as Bell himself, when I read Sir William's report, wherein he said after giving an account of the tests: "I need hardly say I was astonished and delighted, so were the others who witnessed the experiment, and verified with their own ears the electric transmission of speech. This, perhaps, the greatest marvel hitherto achieved by electric telegraph, has been obtained by appliances of quite a homespun and rudimentary character." I have never forgiven Sir William for that last line. Homespun!

Experimentation

However, I recovered from this blow, and soon after, Mr. Gardiner G. Hubbard, afterwards Mr. Bell's father-in-law, offered me an interest in Bell's patents if I would give up my work at Williams' and devote my time to the telephone. I accepted although I wasn't altogether sure it was a wise thing to do from a financial standpoint. My contract stipulated that I was to work under Mr. Bell's directions, on the harmonic telegraph as well as on the speaking telephone, for the two men who were paying the bills still thought there was something in the former invention, although very little attention had been given to its vagaries after the June 2nd discovery.

I moved my domicile from Salem to another room on the top floor at 5 Exeter Place, giving us the entire floor, and as Mr. Bell had lost most of his pupils by wasting so much of his time on telephones, he could devote nearly all his time to the experimenting. Then followed a period of hard and continuous work on the invention. I made telephones with every modification and combination of their essential parts that either of us could think of. I made and we tested telephones with all sizes of diaphragms made of all kinds of materials—diaphragms of boiler iron several feet in diameter, down to a miniature affair made of the bones and drum of a human ear, and found that the best results came from an iron diaphragm of about the same size and thickness as is used today. We tested electro magnets and permanent magnets, of a multitude of sizes and shapes, with long cores and short cores, fat cores and thin cores, solid cores and cores of wires, with coils of many sizes, shapes and resistances and mouthpieces of an infinite variety. Out of the hundreds of experiments there emerged practically the same telephone you take off the hook and listen today, although it was then transmitter as well as receiver.

"Talking" from Boston to Cambridge

Progress was rapid, and on October 9, 1876, we were ready to take the baby out doors for the first time. We got permission from the Walworth Manufacturing Company to use their private wire running from Boston to Cambridge, about two miles long. I went to Cambridge that evening with one of our best telephones, and waited until Bell signalled from the Boston office on the Morse sounder. Then I cut out the sounder and connected in the telephone and listened. Not a murmur came through! Could it be that although the thing worked all right in the house it wouldn't work under practical line conditions? That fear passed through my mind as I worked over the instrument, adjusting it and tightening the wires in the binding posts, without improving matters in the least. Then the thought struck me that perhaps there was another Morse sounder in some other room. I traced the wires from the place they entered the building and sure enough I found a relay with a high resistance coil in the circuit. I cut it out with a piece of wire across the binding posts and rushed back to my telephone and listened. That was the trouble. Plainly as one could wish came Bell's "ahoy," "ahoy!" I ahoyed back, and the first long distance telephone conversation began. Skeptics had been objecting that the telephone could never compete with the telegraph as its messages would not be accurate. For this reason Bell had arranged that we should make a record of all we said and heard that night, if we succeeded in talking at all. We carried out this plan and the entire conversation was published in parallel columns in the next morning's Advertiser, as the latest startling scientific achievement. Infatuated with the joy of talking over an actual telegraph wire, we kept up our conversation until midnight. It was a very happy boy that travelled back to Boston in the small hours with the telephone under his arm done up in a newspaper. Bell had taken his record to the newspaper office and was not at the laboratory when I arrived there, but when he came in there ensued a jubilation that elicited next morning from our landlady, who wasn't at all scientific in her tastes, the remark that we'd have to vacate if we didn't make less noise nights.

Tests on still longer telegraph lines soon followed—the success of each experiment being in rather exact accordance with the condition of the poor rusty-jointed wires we had to use. Talk about imps that baffle inventors! There was one of an especially vicious and malignant type in every unsoldered joint of the old wires. The genial Tom Doolittle hadn't even thought of his hard drawn copper wire then, with which he later eased the lot of the struggling telephone man.

Our Many Visitors

Meanwhile the fame of the invention had spread rapidly abroad and all sorts of people made pilgrimages to Bell's laboratory to hear the telephone talk. A list of the scientists who came to the attic of that cheap boarding house to see the telephone would read like the roster of the American Association for the Advancement of Science. My old electrical mentor, Moses G. Farmer, called one day to see the latest improvements. He told me then with tears in his eyes when he first read a description of Bell's telephone he couldn't sleep for a week, he was so mad with himself for not discovering the thing years before. "Watson," said he, "that thing has flaunted itself in my very face a dozen times within the last ten years and every time I was too blind to see it." "But," he continued, "if Bell had known anything about electricity he would never have invented the telephone."

Two of our regular visitors were young Japanese pupils of Professor Bell—very polite, deferential, quiet, bright-eyed little men, who saw everything and made cryptic notes. They took huge delight in proving that the telephone could talk Japanese. A curious effect of the telephone I noticed at that time was its power to paralyze the tongues of men otherwise fluent enough by nature and profession. I remember a prominent lawyer, who when he heard my voice in the telephone making some such profound remark to him as, "How do you do," could only reply, after a long pause, "Rig a jig jig and away we go."

A "Wireless Telephone"

Men of quite another sort came occasionally. Mr. Hubbard received a letter one day from a man who

Digitized by Google

wrote that he could put us on the track of a secret that would enable us to talk any distance without a wire. This interested Mr. Hubbard and he made an appointment for the man to meet me. At the appointed time, a stout, rather unkempt man made his appearance. He didn't take the least interest in the telephone; he said that was already a back number, and if we would hire him for a small sum per week we would soon learn how to telephone without any apparatus or any wires. He went on to tell in a most convincing way how two prominent theatrical men in New York, whom he had never seen, had got his brain so connected into their circuit that they could talk with him at any time, day or night, and make all sorts of fiendish suggestions to him. He didn't know yet how they did it, but he was sure I could find out their secret, if I would just take the top off his head and examine his brain. It dawned on me then that I was dealing with an insane man. I got rid of him as soon as I could by promising to experiment on him when I could find time. The next I heard of the poor fellow he was in the violent ward of an insane asylum. Several similar cases of insanity attracted by the fame of Bell's occult (!) invention called on us or wrote to us within a year of that time.

Telephone Installations

We began to get requests for telephone installations long before we were ready to supply them. In April, 1877, the first out door telephone line was run between Mr. Williams' office at 109 Court Street and his house in Somerville. Professor Bell and I were present and participated in the important ceremony of opening the line and the event was a headliner in the next morning's papers.

Financial Problems

At about this time Professor Bell's financial problems had begun to press hard for solution. We were very much disappointed because the President of the Western Union Telegraph Company had refused, somewhat contemptuously, Mr. Hubbard's offer to sell him all the Bell patents for the exorbitant sum of $100,000. It was an especially hard blow to me, for while the negotiations were pending I had had visions of a sumptuous office in the Western Union Building in New York which I was expecting to occupy as Superintendent of the Telephone Department of the great telegraph company. However, we recovered even from that facer. Two years later the Western Union would gladly have bought those patents for $25,000,000.

But before that happy time there were lots of troubles of all the old and of several new varieties to be surmounted. Professor Bell's particular trouble in the Spring of 1877 arose from the fact that he had fallen in love with a most charming young lady. I had never been in love myself at that time and that was my first opportunity of observing what a serious matter it can be, especially when the father isn't altogether enthusiastic. I rather suspected at that time that that shrewd but kind-hearted gentleman put obstacles in the course of that true love, in order to stimulate the young man to still greater exertions in perfecting his inventions. But he might have thought as Prospero did:

ORIGINAL BOX TELEPHONE USED IN BOSTON-NEW YORK DEMONSTRATIONS

"They are both in either's power; but this swift business
I must uneasy make, lest too light winning
Make the prize light."

Bell's immediate financial needs were solved, however, by the demand that began at this time for public lectures by him on the telephone. It is hard to realize today what an intense and wide-spread interest there was then in the telephone. I don't believe any new invention could stir the public today as the telephone did then, surfeited as we are now with the wonderful things that have been invented since.

Leasing Instruments a Far Sighted Policy

These lectures are important for another reason than that they solved a temporary money problem. They obviated the necessity of selling telephones outright, instead of leasing them so as to retain control—a policy Mr. Hubbard afterwards adopted which made possible the splendid universal service Mr. Vail with your help has given the Bell system today. Some of the ladies deeply interested in the immediate outcome were strenuously advocating at this critical juncture making and selling the telephones at once in the largest possible quantities—imperfect as they were. Fortunately for the future of the business the returns from the lectures that began at this very time obviated this danger.

Telephone Lectures

Bell's first lecture, as I have said, was given before a well-known scientific society—the Essex Institute—at Salem, Mass. They were especially interested in the telephone because Bell was living in Salem during the early telephone experiments. The first lecture was free to members of the society, but it packed the hall and created so much interest that Bell was requested to repeat it for an admission fee. This he did to an audience that again filled the house. Requests for lectures poured in upon Bell after that. Such men as Oliver Wendell Holmes and Henry W. Longfellow signed the request for the Boston lectures. The Salem lectures were soon followed by a lecture in Providence to an audience of 2,000, by a course of three lectures at the largest hall in Boston—all three packed—by three in Chickering Hall, New York, and by others in most of the large cities of New England. They all took place in the Spring and early summer of 1877, during which time there was little opportunity for experimenting for either Bell or myself, which I think now was rather a good thing for we had become quite stale and needed a change that would give us a new influx of ideas. My part in the lectures was important, although entirely invisible as far as the audience was concerned. I was always at the other end of the wire, generating and transmitting to the hall where Professor Bell was speaking, such telephonic phenomena as he needed to illustrate his lectures. I would have at my end circuit breakers —rheotomes, we called them—that would utter electric howls of various pitches, a lusty cornet player, sometimes a small brass band, and an electric organ with Edward Wilson to play on it, but the star performer was the young man who two years before didn't have voice enough to let Bell hear his own telephone, but in whom that two years of strenuous shouting into mouthpieces of various sizes and shapes had developed a voice with the carrying capacity of a steam calliope. My special function in these lectures was to show the audience that the telephone could really talk. Not only that, I had to do all the singing too, for

Digitized by Google

which my musical deficiencies fitted me admirably.

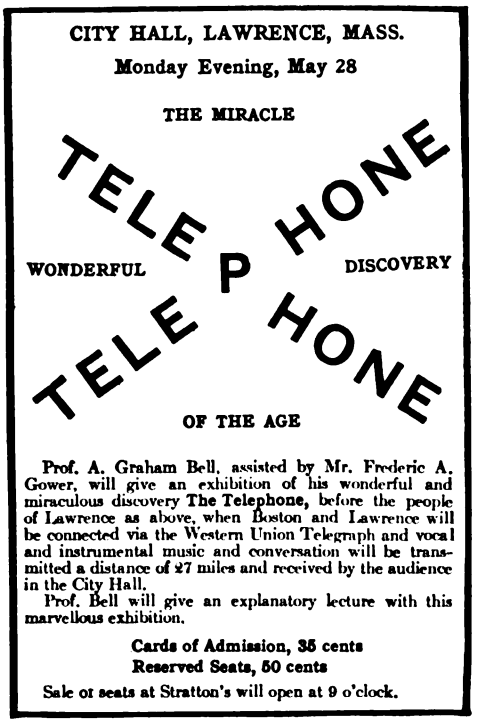
My Telephone Entertainments

Professor Bell would have one telephone by his side on the stage, where he was speaking, and three or four others of the big box variety we used at that time would be suspended about the hall, all connected by means of a hired telegraph wire with the place where I was stationed, from five to twenty-five miles away. Bell would give the audience, first, the commonplace parts of the show and then would come the thrillers of the evening—my shouts and songs. I would shout such sentences as, "How do you do," "Good evening," "What do you think of the telephone?" which they could all hear although the words issued from the mouthpieces rather badly marred by the defective talking powers of the telephones of that date. Then I would sing "Hold the Fort," "Pull for the Shore," "Yankee Doodle," and as a delicate allusion to the Professor's nationality, "Auld Lang Syne." My sole sentimental song was "Do Not Trust Him, Gentle Lady." This repertoire always brought the house. After every song I would listen at my telephone for further directions from the lecturer, and always felt the artist's joy when I heard in it the long applause that followed each of my efforts. I was always encored to the limit of my repertoire and sometimes had to sing it through twice.

I have always understood that Professor Bell was a fine platform speaker but this is entirely hearsay on my part for, although I spoke at every one of his lectures, I have never yet had the pleasure of hearing him deliver an address.

First Sound Proof Booth

In making the preparations for the New York lectures I incidentally invented the sound proof booth, but as Mr. Lockwood was not then associated with us, and for other reasons, I never patented it. It happened thus: Bell thought he would like to astonish the New Yorkers by having his lecture illustrations sent all the way from Boston. To determine whether this was practicable, he made arrangements to test the telephones a few days before on one of the Atlantic and Pacific wires. The trial was to take place at midnight. Bell was at the New York end, I was in the Boston laboratory. Having vividly in mind the strained relations already existing with our landlady, and realizing the carrying power of my voice when I really let it go, as I knew I should have to that night, I cast about for some device to deaden the noise. Time was short and appliances scarce, so the best I could do was to take the blankets off our beds and arrange them in a sort of loose tunnel, with the telephone tied up in one end and the other end open for the operator to crawl into. Thus equipped I awaited the signal from New York announcing that Bell was ready. It came soon after midnight. Then I connected in the telephone, deposited myself in that cavity, and shouted and listened for two or three hours. It didn't work as well as it might. It is a wonder


CITY HALL, LAWRENCE, MASS.

Monday Evening, May 28

THE MIRACLE

TELE P HONE

WONDERFUL DISCOVERY

TELE HONE

OF THE AGE

Prof. A. Graham Bell, assisted by Mr. Frederic A. Gower, will give an exhibition of his wonderful and miraculous discovery **The Telephone**, before the people of Lawrence as above, when Boston and Lawrence will be connected via the Western Union Telegraph and vocal and instrumental music and conversation will be transmitted a distance of 27 miles and received by the audience in the City Hall.

Prof. Bell will give an explanatory lecture with this marvellous exhibition.

Cards of Admission, 35 cents

Reserved Seats, 50 cents

Sale of seats at Stratton's will open at 9 o'clock.

FACSIMILE OF FLIER ADVERTISING PROF. BELL'S LECTURE AT LAWRENCE, MASS., MONDAY EVENING, MAY 28, 1877.

some of my remarks didn't burn holes in the blankets. We talked after a fashion but Bell decided it wasn't safe to risk it with a New York audience. My sound proof booth, however, was a complete success, as far as stopping the sound was concerned, for I found by cautious inquiry next day that nobody had heard my row. Later inventors improved my booth, making it more comfortable for a pampered public but not a bit more sound proof.

"The Suppositious Mr. Watson"

One of those New York lectures looms large in my memory on account of a novel experience I had at my end of the wire. After hearing me sing, the manager of the lectures decided that while I might satisfy a Boston audience I would never do for a New York congregation, so he engaged a fine baritone soloist—a powerful negro, who was to assume the singing part of my program. Being much better acquainted with the telephone than that manager was I had doubts about the advisability of this change in the cast. I didn't say anything, as I didn't want to be accused of professional jealousy, and I knew my repertoire would be on the spot in case things went wrong. I was stationed that night at the telegraph office at New Brunswick, New Jersey, and I and the rest of the usual appliances of that end of the lecture went down in the afternoon to get things ready. I rehearsed my rival and found him a fine singer but had difficulty in getting him to crowd his lips into the mouthpiece. He was handicapped for the telephone business by being musical, and he didn't like the sound of his voice jammed up in that way. However, he promised to do what I wanted when it came to the actual work of the evening, and I went to supper. When I returned to the telegraph office, just before eight o'clock, I found to my horror that the young lady operator had invited six or eight of her dear friends to witness the interesting proceedings. Now, besides my musical deficiencies, I had another qualification as a telephone man—I was very modest; in fact, in the presence of ladies, extremely bashful. It didn't trouble me in the least to talk or sing to a great audience, provided, of course, it was a few miles away, but when I saw those girls, the complacency with which I had been contemplating the probable failure of my fine singer was changed to painful apprehension. If he wasn't successful a very bashful young man would have a new experience. I should be obliged to sing myself before those giggling, unscientific girls. This world would be a better place to live in if we all tried to help our fellow men succeed, as I tried that night, when the first song was called for, to make my musical friend achieve a lyrical triumph on the Metropolitan stage. But he sang that song for the benefit of those girls, not for Chickering Hall, and it was with a heavy heart that I listened for Bell's voice when he finished it. The blow fell. In his most delightful platform tones, Bell uttered the fatal words I had foreboded, "Mr. Watson, the audience could not hear that. Won't you please sing?" Bell was always a kindhearted man, but he didn't know. However, I nerved myself with the thought that that New York audience, made sceptical by the failure of that song, might be thinking cynical things about my beloved leader and his telephone, so

Digitized by Google

I turned my back on those girls and made that telephone rattle with the stirring strains of "Hold the Fort," as it never had before. Then I listened again. Ah, the sweetness of appreciation! That New York audience was applauding vigorously. When it stopped, the same voice came with a new note of triumph in it. "Mr. Watson, the audience heard that perfectly and call for an encore." I sang through my entire repertoire and began again on "Hold the Fort," before that audience was satisfied. That experience did me good, I have never had stage fright since. But the "suppositious Mr. Watson," as they called me then, had to do the singing at all of Bell's subsequent lectures. Nobody else had a chance at the job; one experience was enough for Mr. Bell.

My baritone had his hat on his head, and a cynical expression on his face, when I finished working on those songs. "Is that what you wanted?" he asked. "Yes." "Well, boss, I couldn't do that." Of course he couldn't.

An Exhibition in Lawrence

Another occasion is burnt into my memory that wasn't such a triumph over difficulties. In these lectures we always had another trouble to contend with, besides the rusty joints in the wires; that was the operators cutting in, during the lectures, their highest resistance relays, which enabled them to hear some of the intermittent current effects I sent to the hall. Inductance, retardation and all that sort of thing which you have so largely conquered since, were invented long before the telephone was, and were awaiting her on earth all ready to slam it when Bell came along. Bell lectured at Lawrence, Mass., one evening in May, and I prepared to furnish him with the usual program from the laboratory in Boston.

City Hall, Lawrence, Mass.

Monday Evening, May 28.

The Miracle.

WONDERFUL TELEPHONE DISCOVERY

Of the Age.

Prof. A. Graham Bell, assisted by Mr. Frederic A. Gower, will give an exhibition of his wonderful and miraculous discovery, The Telephone, before the people of Lawrence as above, when Boston and Lawrence will be connected via the Western Union Telegraph, and vocal and instrumental music and conversation will be transmitted a distance of 27 miles and received by the audience in the City Hall.

Prof. Bell will give an explanatory lecture with this marvellous exhibition.

Cards of Admission, 35 cents

Reserved Seats, 50 cents.

Sale of seats at Stratton's will open at 9 o'clock.

But the wire the company assigned us was the worst yet. It worked fairly well when we tried it in the afternoon, but in the evening every station on the line had evidently cut in its relay, and do my best I couldn't get a sound through to the hall.

The local newspaper generally sent a reporter to my end of the wire to write up the occurrences there. This is the report of such an envoy as it appeared in the Lawrence paper the morning after Bell's lecture there:

"Mr. Fisher returned this morning. He says that Watson, the organist and himself occupied the laboratory, sitting in their shirt sleeves with their collars off. Watson shouted his lungs into the telephone mouthpiece, 'Hoy! Hoy! Hoy!' and receiving no response inquired of Fisher if he pardoned for a little 'hamburg edging' on his language. Mr. Fisher endeavored to transmit to his Lawrence townsman the tune of 'Federal Street' played upon the cornet, but the air was not distinguishable here. About ten P. M. Watson discovered the 'Northern Lights' and found his wires alive with lightning, which was not included in the original scheme of the telephone. He says the loose electricity abroad in the world was too much for him."

"Waiting for Watson"

The next morning a poem appeared in the Lawrence paper. The writer must have sat up all night to write it. It was entitled "Waiting for Watson," and as I am very proud of the only poem I ever had written about me, I am going to ask your permission to read it. Please notice the great variety of human feeling, the poet put into it. It even suggests missiles, though it flings none.

Lawrence, Mass., Daily American, Tuesday, May 29, 1877.

WAITING FOR WATSON.

To the great hall we strayed,
Fairly our fee we paid,
Seven hundred there delayed,
But, where was Watson?

Was he out on his beer?
Walked he off on his ear?
Something was wrong, 'tis clear,
What was it, Watson?

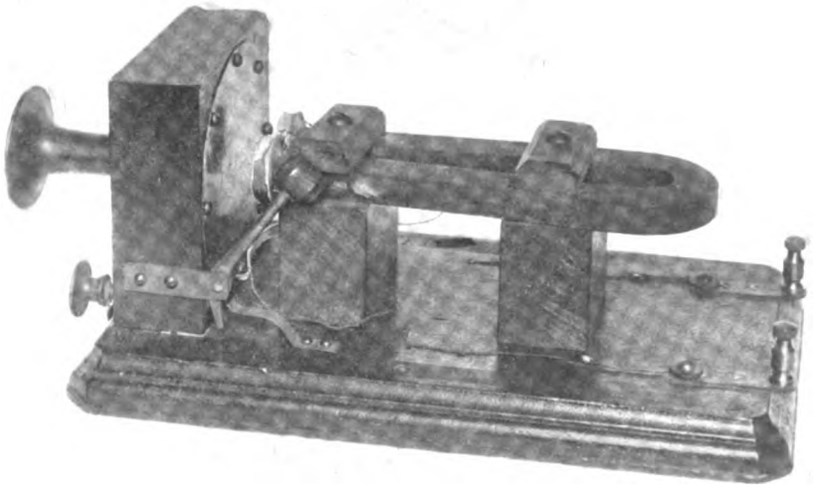
Seven hundred souls were there,
Waiting with stony stare,
In that expectant air—
Waiting for Watson.

Oh! how our ears we strained,
How our hopes waxed and waned,
Patience to dregs we drained,
Yes, we did, Watson!

Softly the bandmen played,
Rumbled the Night Brigade,
For this our stamps we paid,
Only this, Watson!

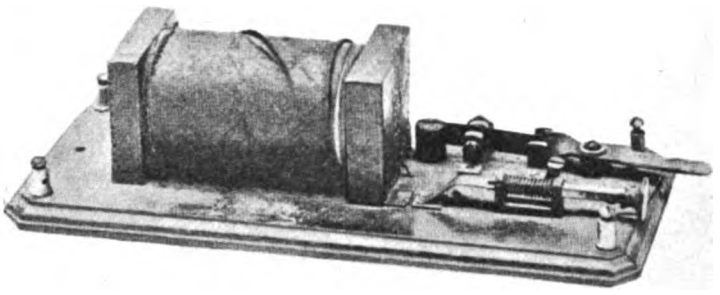
But, Hope's by fruitage fed,
Promise and Act should wed,
Faith without works is dead,
Is it not, Watson?

Give but one lusty groan,
For bread we'll take a stone,



BOX TELEPHONE WITH WATSON HAMMER SIGNAL

Digitized by Google



WATSON'S "BUZZER"

Ring your old telephone!
Ring, brother Watson!

Doubtless 'tis very fine,
When, all along the line,
Things work most superfine—
Doubtless 'tis, Watson.

Let's hear the thrills and thrums
That your skilled digit drums,
Sriking our typmpanums—
Music from Watson.

We know that, every day,
Schemes laid to work and pay,
Fair and "gang aft a-gley"—
Often, friend Watson.

And we'll not curse, or fling,
But, next time, do the thing
And we'll all rise and sing
"Bully for Watson!"

Or, by the unseen powers,
Hope in our bosom sours,
No telephone in ours—
"Please, Mr. Watson."

My Last Public Appearance

But my vacation was about over. Besides raising the wind, the lectures had stirred up a great demand for telephone lines. The public was ready for the telephone long before we were ready for the public, and this pleasant artistic interlude had to stop; I was needed in the shop to build some telephones to satisfy the insistent demand. Fred Gower, a young newspaper man of Providence, had become interested with Mr. Bell in the lecture work. He had an unique scheme for a dual lecture with my illustrations sent from a central point to halls in two cities at the same time. I think my last appearance in public was at one of these dualities. Bell lectured at New Haven and Gower gave the talk at Hartford while I was in between at Middletown, Conn., with my apparatus, including my songs. It didn't work very well. The two lecturers didn't speak synchronously. Gower told me afterwards that I was giving him, "How do you do," when he wanted "Hold the Fort," and Bell said I made it awkward for him by singing "Do Not Trust Him, Gentle Lady," when he needed the trombone solo.

The "Gower-Bell" Telephone

In the following August, Professor Bell married and went to England, taking with him a complete set of up-to-date telephones, with which he intended to start the trouble in that country. Fred Gower became so fas-

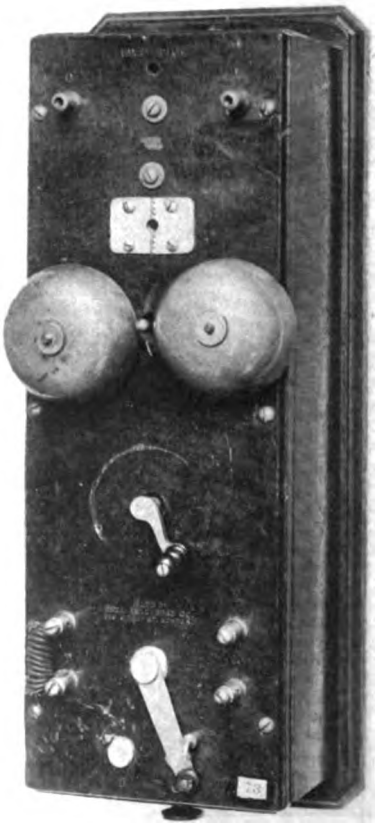
WATSON TYPE OF RINGER

cinated with lecturing on the telephone that he gave up an exclusive right Mr. Hubbard had granted him for renting telephones all over New England, for the exclusive privilege of using the telephone for lecture purposes all over the United States. But it wasn't remunerative after Bell and I gave it up. The discriminating public preferred Mr. Bell as a speaker—and I always felt that the singing never reached the early heights.

Gower went to England later. There he made some small modification of Bell's telephone, called it the "Gower-Bell" telephone, and made a fortune out of his hypenated atrocity. Later he married Lillian Nordica, although she soon separated from him. He became interested in ballooning. The last scene in his life before the curtain dropped showed a balloon over the waters of the English channel. A fishing boat hails him, "Where are you bound?" Gower's voice replies, "To London." Then the balloon and its pilot drifted into the mist forever.

Developing a Calling Apparatus; the "Watson" Buzzer

As I said, I went back to work, and my next two years was a continuous performance. It began to dawn on us that people engaged in getting their living in the ordinary walks of life couldn't be expected to keep the telephone at their ear all the time waiting for a call, especially as it weighed about ten pounds then and was as big as a small packing case, so it devolved on me to get up some sort of a call signal. Williams on his line used to call by thumping the diaphgram through the mouthpiece with the butt of a lead pencil. If there was someone close to the telephone at the telephone at the other end, and it was very still, it did pretty well, but it seriously damaged the vitals of the machine and therefore I decided it wasn't really practical for the general public; besides we might have to supply a pencil with every telephone and that would be expensive. Then I rigged a little hammer inside the box with a button on the outside. When the button was thumped the hammer



MAGNETO WALL SET
(Williams Coffin)

Digitized by Google

would hit the side of the diaphragm where it could not be damaged, the usual electrical transformation took place, and a much more modest but still unmistakable thump would issue from the telephone at the other end.

That was the first calling apparatus ever devised for use with the telephone, not counting Williams' lead pencil, and several with that attachment were put into practical use. But the exacting public wanted something better, and I devised the Watson "Buzzer"—the only practical use we ever made of the harmonic telegraph relics. Many of these were sent out. It was a vast improvement on the Watson "Thumper," but still it didn't take the popular fancy. It made a sound quite like the horse radish grater automobile signal we are so familiar with now-a-days, and aroused just the same feeling of resentment that does. It brought me only a fleeting fame for I soon superseded it by a magneto-electric call bell that solved the problem, and was destined to make a long-suffering public turn cranks for the next fifteen years or so, as it never had before, or ever will hereafter.

Perhaps I didn't have any trouble with the plaguey thing! The generator part of it was only an adaptation of a magneto shocking machine I found in Davis' Manual of Magnetism and worked well enough, but I was guilty of the jingling part of it. At any rate I felt guilty when letters began to come from our agents reciting their woes with the thing, which they said had a trick of sticking and failing on the most important occasions to tinkle in response to the frantic crankings of the man who wanted you. But I soon got it so it behaved itself and it has been good ever since, for Chief Engineer Carty told me the other day that nothing better has ever been invented, that they have been manufactured by the millions all over the world, and that identical jingler to-day does practically all the world's telephone calling.

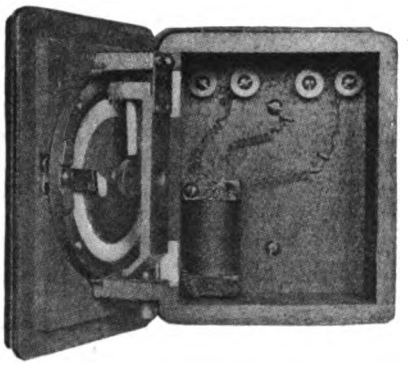
"Williams Coffins"

For some reason, my usual good luck I presume, the magneto call bells didn't get my name attached to them. I never regretted this for the agents, who bought them from Williams, impressed by the long and narrow box in which the mechanism was placed, promptly christened them "Williams Coffins." I always thought that a narrow escape for me!

The first few hundreds of these call bells were a continuous shock to me for other reasons than their failure to respond. I used on them a switch, that had to be thrown one way by hand, when the telephone was being used, and then thrown back by hand to put the bell in circuit again. But the average man or women wouldn't do this more than half the time, and I was obliged to try a series of devices, which culminated in that remarkable achievement of the human brain—the

FRANCIS BLAKE

automatic switch—that only demanded of the public that it should hang up the telephone after it got through talking. This the public learned to do quite well after a few years of practice.

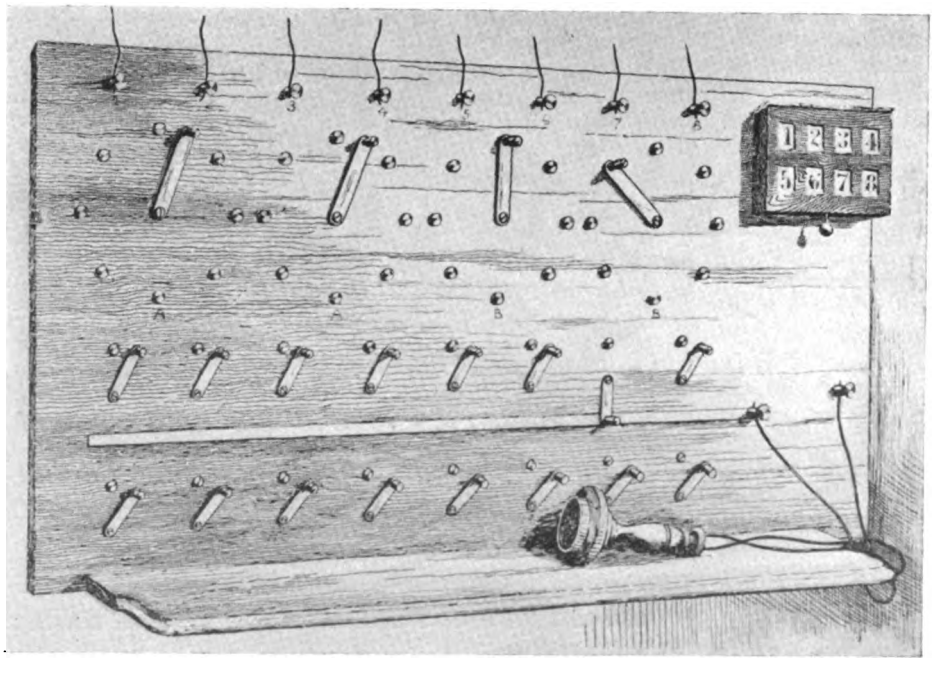


THE BLAKE TRANSMITTER

The Blake Transmitter

You wouldn't believe me if I should tell you a tithe of the difficulties we got into by flexible cords breaking inside the covering, when we first began to use hand telephones!

Then they began to clamor for switchboards for the first centrals, and individual call bells began to keep me awake nights. The latter was very important then, for such luxuries as one station lines were scarce. Six to twenty stations on a wire was the rule, and we were trying hard to get a signal that would call one station without disturbing the whole town. All these and many other things had to be done at once, and, as if this was not enough, it suddenly became necessary for me to devise a battery transmitter. The Western Union people had discovered that the telephone was not such a toy as they had thought, and as our $100,000 offer was no longer open for acceptance, they decided to get a share of the business for themselves, and



THE FIRST TELEPHONE SWITCHBOARD USED IN NEW HAVEN, CONN., FOR EIGHT SUBSCRIBERS

Digitized by Google

Edison evolved for them his carbon-button transmitter. This was the hardest blow yet.

We were still using the magneto transmitter, although Bell's patent clearly covered the battery transmitter. Our transmitter was doing much to develop the American voice and lungs, making them powerful but not melodious. This was, by the way, the telephone epoch when they used to say that all the farmers waiting in a country grocery would rush out and hold their horses when they saw any one preparing to use the telephone. Edison's transmitter talked louder than the magnetos we were using and our agents began to clamor for them, and I had to work nights to get up something just as good. Fortunately for my constitution, Frank Blake came along with his transmitter. We bought it and I got a little sleep for a few days. Then our little David of a corporation sued that big Goliath, the Western Union Company, for infringing the Bell patents, and I had to devote my leisure to testifying in that suit, and making reproductions of the earliest apparatus to prove to the court that they would really talk and were not a bluff as our opponents were asserting.

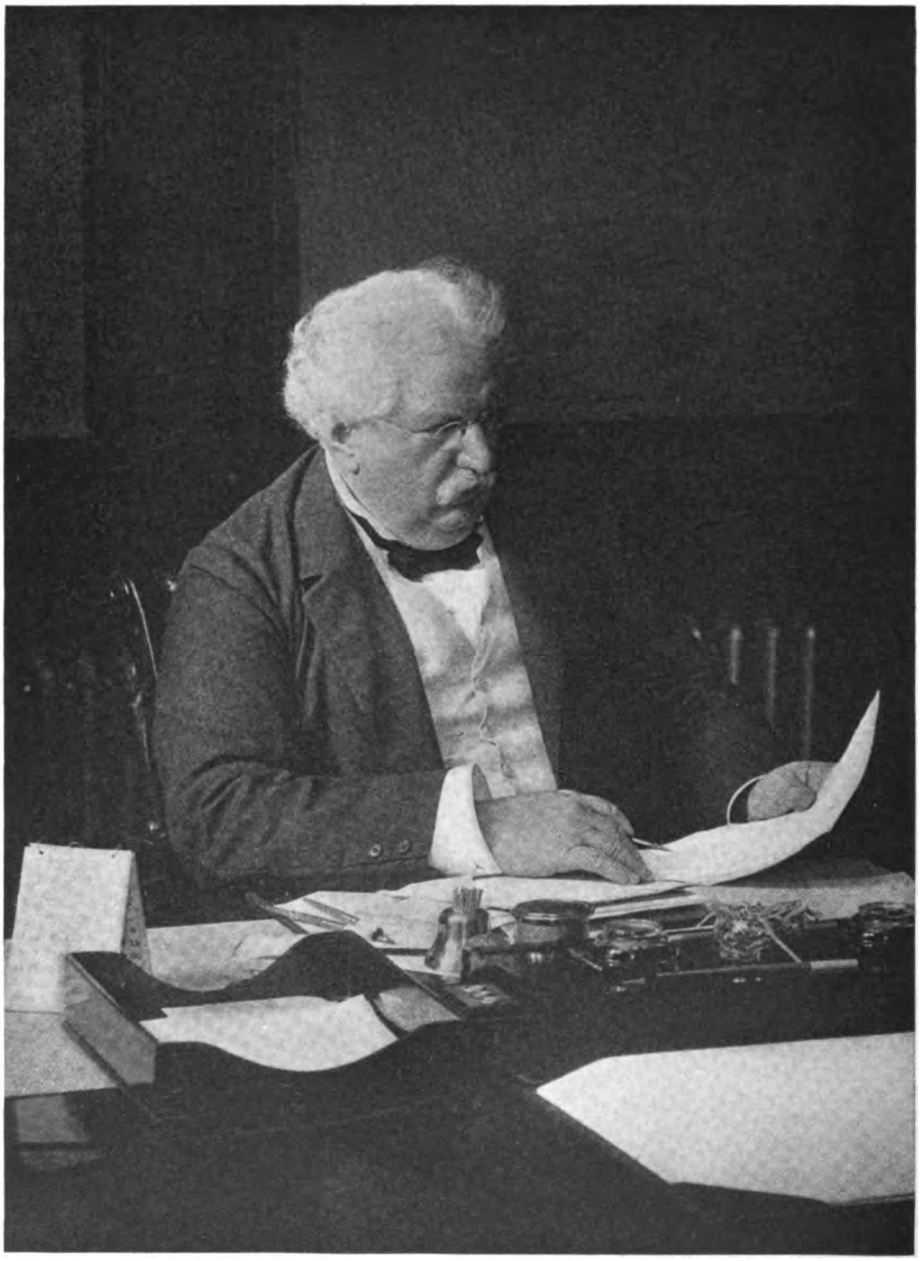
Then I put in the rest of my leisure in making trips among our agents this side of the Mississippi to bring them up to date and see what the enemy were up to. I kept a diary of those trips. It read rather funnily today, but I won't go into that. It would detract from the seriousness of this discourse.

Wire Troubles

Nor must I forget an occasional diversion in the way of a sleet storm which, combining with our wires then beginning to fill the air with house top lines and pole lines along the sidewalks, would make things extremely interesting for all concerned. I don't remember ever going out to erect new poles and run wires after such a catastrophe. I think I must have done so, but such a trifling matter naturally would have made but little impression upon me.

Is it any wonder that my memory of those two years seems like a combination of the Balkan war, the rush hours on the subway and a panic on the stock market?

THEODORE N. VAIL IN 1878



THEODORE N. VAIL

Memories

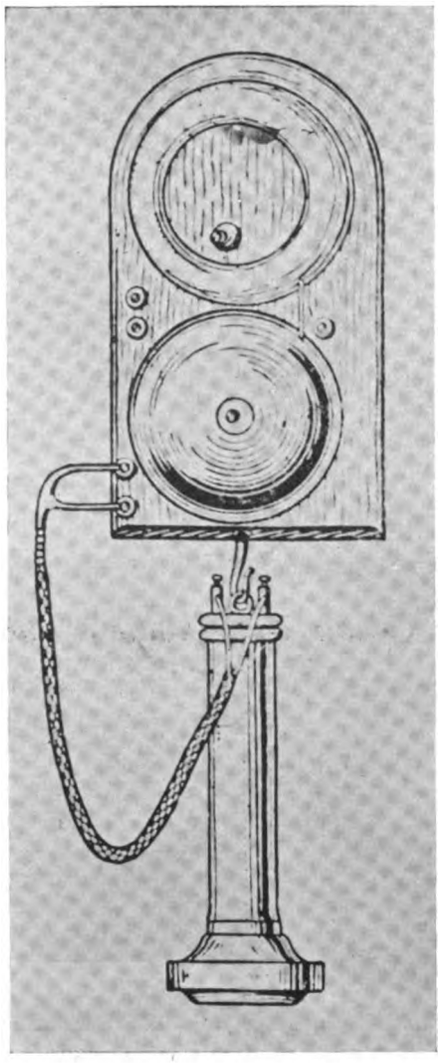
I was always glad I was not treasurer of the company, although I filled about all the other offices during those two years. Tom Sanders was our treasurer, and a mighty good one he made. Had it not been for his pluck and optimism, we might all of us have failed to attain the prosperity that came to us later. The preparation of this paper has aroused in me many delightful memories, but with them have been mixed sad thoughts too for friends who have gone. Jovial Tom Sanders! How everybody loved him! No matter how discouraging the outlook was, the skies cleared whenever he came into the shop. I can hear his ringing laugh now!

It was a red letter day for me when he hired the first bookkeeper the telephone business ever had—the keen, energetic, systematic Robert W. Devonshire. You must not forget "Dev." I never shall, for after he came I didn't have

Digitized by Google

LOCATION OF THE FIRST TELEPHONE SWITCHBOARD IN BOSTON — HOLMES BURGLAR ALARM BLDG.

FIRST TYPE OF TELEPHONES INSTALLED ON SUBSCRIBERS' PREMISES



SHOWING BELLS FIRST IN USE

to keep the list of telephone leases in my head any more.

Then Thomas D. Lockwood was hired to take part of my engineering load, but he developed such an extraordinary faculty for comprehending the intricacies of patents and patent law, that our lawyers captured him very soon, and kept him at work until he practically captured their job. And how proud I was when the company could afford the extravagance of a clerk for me. He is still working for the company—Mr. George W. Pierce.

I suppose I did have some fun during this time, but the only diversion that lingers in my mind is arranging telephones in a diver's helmet for the first time, and finding that the diver could not hear when he was under water, going down myself to see what the matter was. I still feel the pathos of the moment, when, arrayed for the descent, just before I disappeared beneath the limpid waters of Boston harbor, my usually undemonstrative assistant put his arm around my inflated neck and kissed me on the glass plate.

The Coming of Theo. N. Vail

But matters soon began to straighten out—the clouds gradually cleared away. The Western Union tornado ceased to rage, and David found to his delight that he had hit Goliath squarely in the forehead with a rock labelled Patent No. 174465. Then for the first time stock in the Bell Company began to be worth something on the stock market.

Something else happened about that time fully as important. The Company awoke to the fact that the Watson generator was overloaded, and that it ought to get a new dynamo. Watson could still hold up the engineering end perhaps, but we must have a business manager. President Hubbard said he knew just the man for us—a thousand horse power steam engine wasting his abilities in the United States Railway Mail Service, and he sent me down to Washington to investigate and report.

I must have ben impressed, for I telegraphed to Mr. Hubbard to hire the man if he could raise money enough to pay his salary. He did so. This was one of the best things I ever helped to do. When the new manager came to work a short time later, he said to me: "Watson, I want my desk along side of yours for a few months

WOODEN HAND TELEPHONE USED COMMERCIALLY IN 1877. IT RESEMBLES OUR PRESENT DAY RECEIVER

Digitized by Google

until I learn the ropes." But the balance of the conceit that previous two years had not knocked out of me vanished, when in about a fortnight, I found he knew all I had learned, and that at the end of a month I was toddling along in the rear trying to catch up, which I never did. He has still quite an important position in the business. His name is Vail. May his light never dim for many and many a year!

The Bell System

The needs of the new business attracted other men with good ideas who entered our service, such men as Emile Berliner and George L. Anders and many others. Every agency became a center of inventive activity, each with its special group of ingenious, thinking men—every one of whom contributed something, and sometimes a great deal, to the improvement of apparatus or methods. I remember particularly Mr. Gilliland of Indianapolis, an ingenious man and excellent mechanic, who improved the generator of my magneto call bell, shortening the box and making it less funereal.

He did much also for central office switchboards.

This was the beginning of the great wave of telephonic activity, not only in electrical and mechanical invention, but also in business and operative organization, which has been increasing in its force ever since, to which men in this audience have made and are making splendid contributions. Today that wave has become a mighty flood on which the great Bell system floats majestically as it moves ever onward to new achievements.

Turning to Other Activities

My connection with the telephone business ceased in 1881. The strenuous years I had passed through had fixed in me a habit of not sleeping nights as much as I should, and a doctor man told me I would better go abroad for a year or two for a change. There was not the least need of this, but as it coincided exactly with my desires, and as the telephone business had become, I thought, merely a matter of routine, with nothing more to do except pay dividends and fight infringers, I resigned my position as General Inspector of the Company, and went over the ocean for the first time.

When I returned to this country a year or so later, I found the telephone business had not suffered in the least from my absence, but there were so many better men doing the work that I had been doing, that I didn't care to go into it again.

I was looking for more trouble in life and so I went into shipbuilding, where I found all I needed.

Before Mr. Bell went to England on his bridal trip, we agreed that as soon as the telephone became a matter of routine business he and I would begin experimenting on flying machines, on which subject he was full of ideas at that early time. I never carried out this agreement. Bell did some notable work on air ships later, but I turned my attention to battleships.

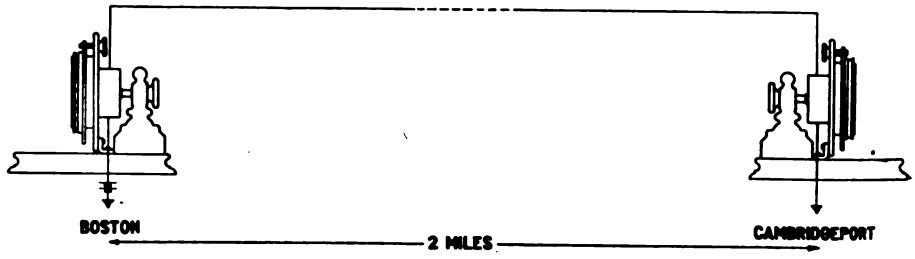
My Greatest Pride

Such is my very inadequate story of the earliest days of the telephone so far as they made part of my life. Today when I go into a central office or talk over a long distance wire or read the annual report of the American Telephone and Telegraph Company, filled with figures up in the millions and even billions, when I think of the growth of the business, and the marvelous improvements that have been made since the day I left it, thinking there was nothing more to do but routine, I must say that all that early work I have told you about seems to shrink into a very small measure, and, proud as I always shall be, that I had the opportunity of doing some of that earliest work myself, my greatest pride is that I am one of the great army of telephone men, every one of whom has played his part in making the Bell Telephone service what it is today.

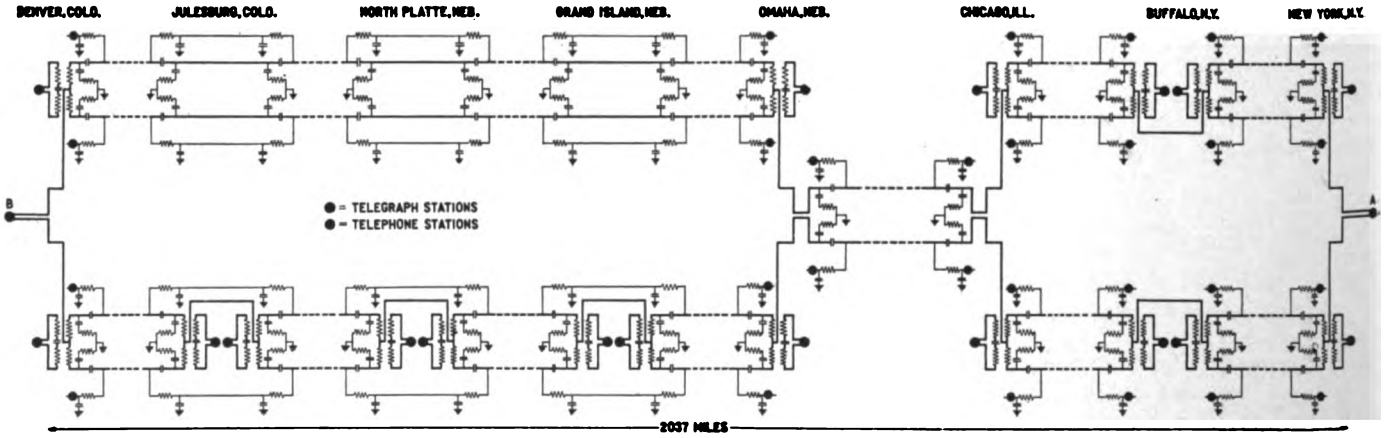
I thank you.

CIRCUIT AND INSTRUMENTS USED BY PROF. BELL OCT. 9, 1876.

THE FIRST TIME THAT SATISFACTORY AND SUSTAINED CONVERSATION WAS CARRIED ON BY ELECTRICAL MEANS BETWEEN PERSONS MILES APART.



SIMPLIFIED NEW YORK—DENVER CIRCUIT—OPENED MAY 8, 1911.



WHILE A CONVERSATION IS BEING CARRIED ON BETWEEN NEW YORK AND DENVER, (TELEPHONES A AND B) NINE OTHER INTERMEDIATE TELEPHONE CONVERSATIONS CAN BE GOING ON OVER VARIOUS PARTS OF THE CIRCUIT AND TWENTY-EIGHT TELEGRAPH MESSAGES CAN BE SENT SIMULTANEOUSLY.

Digitized by Google

Third Annual Convention of the Telephone Pioneers of America

Held in Chicago, October 17 and 18, 1913

THE Third Annual Convention of The Telephone Pioneers of America was held in Chicago, October 17 and 18, at the Congress Hotel. The gathering was notable in several respects.

In the first place, President Theodore N. Vail called the meeting to order and delivered the opening address. Then again, the meeting being held in Chicago permitted the attendance of large numbers of Pioneers from the middle west and the west, who had been unable to atend the previous conventions at Montreal and New York, while delegations were also present from the Eastern and Southern States.

After an address of welcome by Mr. B. E. Sunny, President of the Chicago Telephone Company and Vice-President of the Pioneers, Mr. Vail surrendered the gavel to Mr. Frank H. Bethell, Vice-President, who presided until the election of the officers, when Mr. T. D. Lockwood took the chair.

The following officers were elected: President, Mr. Theodore N. Vail; Vice-Presidents, Messrs. Thos. D. Lockwood, Chas. F. Sise, Thos. B. Doolittle and G. E. McFarland; Treasurer, Mr. George D. Milne. Messrs. Chas. G. DuBois, Angus S. Hibbard and Chas. E. Scribner were elected members of the Executive Committee, and Messrs. E. F. Sherwood and J. T. Moran were appointed members of the same committee by President Vail.

The report of the Secretary, Mr. Henry W. Pope, showed a total membership of 1,164, an increase since January 1 of 164. A large proportion of the new members are ladies, who seem only recently to have realized that women are eligible to membership as well as men, and on the same conditions.

Addresses were delivered by Messrs. Thos. D. Lockwood, N. C. Kingsbury, Thos. B. Doolittle and Thos. A. Watson.

The hospitable doors of Chicago were sprung wide open to greet the Pioneers, and the entertainment that was provided was worthy of the hosts of the occasion.

On Friday evening, October 17, a two-act musical comedy entitled "Telephonery, Past and Future," was given at the Studebaker Theatre. The first act was written by Messrs. M. D. Atwater, A. P. Allen and E. H. Bangs, and the second act by Mr. Angus S. Hibbard.

The next day was devoted to entertainment, consisting of an automobile inspection trip and tour, and luncheon, followed by a banquet in the evening.

It is probable that the convention next year will be held in Atlanta, Ga., and in 1915 in San Francisco during the progress of the Panama Exposition.

Mr. Vail's address follows:

Ladies and Gentlemen: First I owe you an apology for the inconvenience to which you have been put by the postponement of this gathering, in order that I might meet with you; however, your reception has diminished my feeling of sorrow, and my regret is not so keen as it was.

Allow me to express to you my hearty appreciation and thanks for this occasion, which made it possible for me to be with you, and to convene this third anniversary of that great brotherhood, a brotherhood unique in that while most of you are pioneers, all of you have still an active membership in the great system; and while your work in the past has been great, the work that will in the future be done on the foundation you have laid and the policy you have established, and which will endure throughout all time, will be greater.

Ladies and Gentlemen, Fellow Pioneers and Associates: I greet you as a great brotherhood, interdependent in that each of you have assisted and been assisted by the other; intercommunity, in that throughout this whole organization is only one common thought, resulting in one common policy which has actuated one common movement; universal, in that the genius which originated the policy, and the purposes, and the enthusiasm which has carried it out so wonderfully is the great Bell System, and will be the great system of the future, be it private corporation, or government-owned, boundless and without limitations other than those of geographic, national and commercial nature.

The City of Chicago extends to you its welcome, and one of our associates, Mr. Sunny, will speak for the city, and welcome you to its hospitable doors. I introduce Mr. Sunny.

Biography of the Telephone Told in Pictures

THE Advertising Department has adopted a novel and effective means of telling the public the story of the telephone from the time of its birth in the hands of Alexander Graham Bell to its present high efficiency. Eighty photographs depicting the early as well as the latter day stages of the growth of telephony have been secured, and it is proposed to display these in the windows of the Local Commercial Offices in sixteen groups of five pictures each. Accompanying each set of photographs there will be a chart indicating the connection the pictures bear to the story of the telephone, and it seems certain that the series will be favorably received.

The plan is introduced by a group of photographs showing Alexander Graham Bell as he appeared in 1875 while at work on the telephone. Bell's assistant, Thomas A. Watson, is also shown, together with the original telephone of 1875 and the famous Bell Centennial Iron Box Receiver.

This set is followed by photographs of the early types of telephones with the apparatus used in the early commercial application of the service.

The advent of the telephone switchboard is illustrated and the observer is led up to the time when the rapid increase in the use made of the service by the public necessitated the development of larger telephone exchanges, operated originally by boys.

A group of photographs showing some of the difficulties with which the linemen have to cope is followed by illustrations of the present day system of underground cables. The work of educating the telephone operator to the point of efficiency with which she serves the public today is also shown, together with a brief outline of the pension plan and of the other work that has been planned in her behalf. Views are given of the operator at work and at rest and an added touch of interest is given to the plan by photographs showing "The Telephone Girls of Other Lands."

The series concludes with illustrations which picture some of the remarkable uses made of the service today and with certain facts concerning the cost of a telephone system.

It is proposed to show the sixteen displays in their chronological order in the windows of all Local Offices that can accommodate them. Each display will be run for a period of three weeks, so that in the end the public will obtain a complete and connected story of the telephone from the time Bell heard "its first baby cry," to the present day, when it is accepted in homes and offices as an indispensable factor in the management of both.

Digitized by Google

The Telephone Society of New York

Main Section

IF the first meeting may be accepted as a criterion, the Main Section of The Telephone Society of New York has before it the most successful season in its history. None of the 800 and more members who gathered at the United Engineers Building on October 21 seemed to have lost any of the enthusiasm which marked the meetings of last year, and an outsider would have thought he was witnessing a reunion of old friends who had not seen one another for years.

After the Blue Bell Orchestra had demonstrated by two selections that its musical faculties had not been impaired during the summer months, President Cox called the meeting to order, and 338 applicants for membership were duly elected.

The routine business over, President Cox made a few remarks commenting upon the good start indicated by the large audience, after which he introduced Mr. Gerard Swope, Vice-President of the Western Electric Company, who read a paper on "The Western Electric Company's place in the Bell System."

Following the paper, supplementary remarks on several of its most salient points were made by Messrs. Thayer, Thurber, Du Bois and Gheradi.

President Cox then delivered a short address touching on points which are of vital interest to all members of the Section. He declared that he had never seen a more attentive audience at any of its meetings and emphasized the fact that members joined the organization entirely of their own free will, which demonstrated clearly that they realized its advantages in becoming acquainted with one another and securing interesting information and ideas concerning the work in which they are engaged.

"But," he asked, "are we growing too fast?" The phenomenal growth of the Section which has made necessary a larger and larger meeting place, and the expense of providing the social features are matters which must be carefully considered by all members.

After adjournment a reception was held on the fifth floor. Cigars and refreshments were served and music was again furnished by the Blue Bell Orchestra.

The next meeting of the Section will be held on November 28. At this meeting a number of unusually interesting papers will be read by members of several departments on phases of the telephone business which are of interest to all employees. Arrangements have been made whereby all members who desire to do so will have an opportunity to discuss these papers from the floor.

Central Section

THE first meeting of the Central Section for the season of 1913-1914, was held on October 29, at Assembly Hall, Court House, Syracuse. with a large attendance.

Mr. E. M. Gladden, Division Commercial Engineer, delivered a paper on "The Fixing of Telephone Rates, Exchange and Toll, and their Application."

Mr. Gladden's paper created an unusual amount of interest, and he answered a broadside of questions concerning the facts brought out. Brief remarks were made by Messrs. W. F. Judson, of the Plant Department, New York, and E. A. Munger, of the Engineering Department, New York.

At the close of the regular meeting, a social evening with music and refreshments was enjoyed by the members present.

Western Section

THE 16th Meeting of the Western Section was held in the Telephone Building, Buffalo, on Thursday evening, October 9, with 100 members present. Chairman Mott presided.

The Secretary-Treasurer announced that the Section's funds amounted to $141.89, and the membership totaled 422.

Thirty-nine applicants for membership were duly elected, bringing the total number of members to 461, a gain of over 400 since the Section was organized on October 4, 1911.

It was announced that Mr. W. J. Hiss would speak at the November meeting, and all members of the Section were urged to make an earnest effort to be present and give him a hearty welcome.

The Secretary then read recommendations of the Executive Committee for the amendment of the By-Laws to make the fiscal year of the Western Section standard with the other sections. Chairman Mott explained in detail the proposed changes, and the Secretary-Treasurer was instructed to notify all members in order that the amendments might be voted upon at the November meeting.

The speaker of the evening, Mr. W. K. Collins of the Division Commercial Engineer's Office, was then introduced, and delivered a well prepared and extremely instructive paper upon the Commercial Engineering of the Company, its relation to the other departments, and its scope and responsibilities in the organization of the company as a whole.

Mr. Collins discussed in detail the great growth of the telephone business, which demands the highest type of organization in order that each department may co-operate in carrying on the work of rendering service. He described the functions of the Commercial Engineering Department in its work of determining where and when telephone development should take place, and outlined the methods pursued in securing telephone "markets."

After supplementary remarks on the paper by Messrs. Lillich and Healey the meeting adjourned.

New Cable Construction in Northern New Jersey

DURING the last several months, the Farmers' Union Telephone Company of Sussex, N. J., has been gradually changing all subscriber and toll circuits from "grounded" to "metallic." During the past month the lines to Goshen, Unionville, and Warwick, N. Y., have been changed. It has also constructed 1,400 ft. of 20-pair aerial cable in the town of Sussex, N. J. The placing and splicing of this cable was done by employees of the New York Telephone Company.

Telegrams by Telephone

A FEW weeks ago it was decided by the Western Union Telegraph Company to arrange with the Connecting Telephone Companies for handling "Telegrams by Telephone" in the same manner as has been done for some time past by the Bell Associated Companies.

Standard Western Union Traffic Agreements have been executed by the Red Hook Telephone Company, the Orange County Telephone Company, the Walden Telephone Company, the Highland Telephone Company and the Columbia and Rensselaer Telephone Company, and negotiations are about completed for several others in the Hudson Division.

As soon as arrangements can be completed, these Companies will be able to handle "Telegrams by Telephone," thereby giving their subscribers the benefit of this great convenience.

Digitized by Google

Partial Summary of Outside Development Work, Planned or Under Way

Additional Switchboard Equipment for New Murray Hill Central Office, Manhattan

IN a previous issue of *The* TELEPHONE REVIEW a description was given of the opening of the new Murray Hill Central Office in East 37th Street, Manhattan, which took place about the first of this year. The initial equipment of this switchboard was for 8,200 subscriber lines, but owing to a much larger growth of telephones than had been expected and to a very great increase in the daily use of the telephone in this section of Manhattan, an addition to this switchboard will be required during 1914.

Provision has been made under a recent appropriation of about $113,000 for increasing the equipment of this board to its full capacity, 10,500 subscriber lines, and adding 46 operator positions.

Second Switchboard for Columbus District, Manhattan

THE present Columbus switchboard serving the section of Manhattan in the vicinity of Columbus Circle is equipped to the full capacity for 10,500 subscriber lines, and with the steady rapid growth of telephones which is being secured in this part of the city it is estimated that additional switchboard facilities will be required for this district about the first of 1915, or only slightly more than a year from now.

Specifications have been prepared and an appropriation of about $131,000 has been authorized for a new No. 1 common battery type switchboard of the Western Electric Co.'s make, this switchboard to be installed in the present Columbus Central Office building. The ultimate capacity of this board will be about 10,500 subscriber lines, making, with the existing switchboard, a total ultimate capacity for serving approximately 21,000 telephone lines from this building.

The initial installation will contain equipment for 3,200 subscriber lines and 54 operator positions, and the two switchboards will care for the estimated growth in this district for about the next four years.

Paterson, N. J.

ABOUT a year ago *The* TELEPHONE REVIEW contained a brief description of very extensive plant additions to be made in Paterson at an estimated cost of $155,000.

This work covers the placing of approximately thirty-six miles of cable, and it is now well under way.

All of the underground cables have been placed and about two-thirds of the distributing cables have been run; the cable splicing will be pushed rapidly and within a short time the reconcentration of subscriber stations to the new cables and the removal of the present aerial wires can be started.

Owing to the large amount of cable construction planned in this city it will probably be several months before the reconcentration of subscriber loops to the new cables can be completed and all of the old wires removed.

Hasbrouck Heights, N. J.

THE cable work in Hasbrouck Heights is advancing rapidly, all of the cable now being in place and the splicing under way. Within a short time the subscriber stations will be reconcentrated to the cables and the removal of the existing aerial wires begun.

As mentioned previously, this work will provide Hasbrouck Heights with a complete cable plant throughout all of the developed sections of the towns, and the new business which is expected can be cared for promptly from this plant.

New South Central Office Building

A CONTRACT has recently been awarded to the E. E. Paul Company for the erection of a new South Central Office Building, at 335-341 Fourteenth Street, Brooklyn, N. Y.

The building will be erected under the supervision of and in accordance with the plans and specifications prepared by Messrs. McKenzie, Voorhees & Gmelin.

The new building will be a two-story-and-basement "L" shaped building, having a frontage of 90 feet on 14th Street, with a depth of 31 feet and a wing in the rear 35 feet wide and 45 feet deep.

The present South switchboard, with all practicable additions, can care for about 4,200 working lines, relief being required about January 1, 1914. Temporary relief will be provided for a year from the Hamilton switchboard and permanent relief will be required early in 1915. The building as planned will accommodate a switchboard of 10,500 lines capacity and can be extended on the lot to care for an increase in the calling rate and four stories can be added.

The basements will contain space for the heating plant and cable vault, a small store room for the Plant Department, a battery room and gas engine room.

The first floor will be occupied by the terminal room and operators' quarters and the second floor by the operating room and infirmary.

Every precaution has been taken to make the building fireproof and to provide a safe exit for all occupants of the building in the remote contingency of a fire occurring.

The excavation was started early in September and it is estimated that the building will be completed in April, 1914.

The Western Electric Company is scheduled to start the installation of the switchboard in May, the scheduled date for the cut-over being October 17, 1914.

Lindenhurst, L. I.

MENTION has been made of the new telephone plant to be installed in Lindenhurst. This work has progressed very satisfactorily and at the time of writing, the central office equipment has been practically completed, the cables placed and spliced and the subscriber stations are being reconcentrated to the new cables.

The new plant is scheduled to be ready for service on December 1, and upon its completion and the opening of the new office a large increase of subscribers is expected. It is estimated that the number of telephones in this district will be nearly trebled in the next three or four years and with the new plant facilities it will be possible to care for new business promptly in the developed portions of the town.

Oyster Bay, L. I.

IN a recent issue of *The* TELEPHONE REVIEW mention was made of extensive additions to be made to the cable plant in Oyster Bay. This work is now well under way, all of the cables having been placed, and the stations are being reconcentrated to the cables.

The estimated cost of the work is about $26,000 and it covers the placing of approximately nine miles of cable, including a 100-pair submarine cable to care for subscriber growth on Cen-

Digitized by Google

ter Island. The work will be completed in a short time and will provide Oyster Bay with a cable system reaching into the outlying sections where new development is expected and with adequate facilities to care for a large growth.

During nine months of this year the number of telephones in this district has increased about twenty-five per cent. and the rapid growth is expected to continue.

New Common Battery Switchboard for the Stagg District, Brooklyn

THE new Stagg Central Office district was established in the Williamsburg section of Brooklyn a little more than a year ago and the subscriber lines in this district have been temporarily served from spare switchboard equipment in the Greenpoint office. The present growth in telephones in this section of the city, however, is so rapid that a separate switchboard will be required within a short time to care for the "Stagg" subscriber lines and appropriations have recently been authorized for the building work necessary to house the new switchboard and for the installation of the new equipment.

This building work consists of a 3-story and basement addition to the present Williamsburg Central Office building at No. 14-16 Boerum Street, this addition being located on a lot 75 by 100 ft. adjacent to the present building. The work is now well advanced and the addition should be completed within a few months.

The "Stagg" switchboard will be of the No. 1 common battery type made by the Western Electric Company, with an ultimate capacity for about 10,500 subscriber lines. The equipment to be installed at once will contain 38 operator positions and equipment for 3,700 subscriber lines, and it is estimated that this board will care for growth in the Stagg and Williamsburg districts for three or four years after its completion.

The appropriations for this work are approximately $130,000 for the building addition and $127,000 for the new switchboard—a total of $257,000.

Camden, N. Y.

THE New York Telephone Company has recently taken over the operation of the telephone plant in Camden, N.Y., from the Camden Home Telephone Company, a connecting company, and in order to provide facilities for further developing the service and to improve the condition of the distributing plant throughout the village, plans have been prepared for placing poles and running nearly two miles of cable.

This work will also include the removal of a large number of aerial wires and poles and the completion of the work will provide a comprehensive all-cable plant throughout the village with ample spare conductors to care for the expected growth for several years. A notable improvement in the service will be effected through the reconcentration of subscriber stations to cable, thus doing away with exposures to electric light construction and heavy tree growth and the service troubles due to such exposures. There will also be a marked improvement in the appearance of the plant due to the removal of aerial wires and duplicate poles.

It is estimated that the number of telephones in this district will be approximately doubled during the next three years, and with the new cable plant it will be possible to care promptly for new business in all parts of the village.

An appropriation of nearly $8,000 has been authorized for the work in Camden.

Niagara Falls, N. Y.

WITH the rapid development of residences in various parts of the city and the steady growth of large manufacturing plants, a very rapid increase of telephones has been secured in Niagara Falls during the past few years. During nine months of 1913 the increase has been over 400 telephones, bringing the total number in service to about 4,250, this increase being at the rate of over 15 per cent. for the year.

In order to care for this rapid growth it has been necessary from time to time, as described in former numbers of *The* TELEPHONE REVIEW, to make considerable additions and extensions to the subway and cable plant, and in the fully developed sections of the city the plant in general contains facilities to care for new business for some time to come.

In the newly developed sections, however, where cable construction has not been warranted up to this time, the subscriber stations are cared for by means of aerial wires and where the building construction is very active the aerial leads have become heavily loaded. The maintenance of these wires has been difficult owing to the heavy tree growth and the severe winter weather, and in order to provide for the growth which is expected to continue and to avoid service troubles or interruptions, plans have been approved for placing a total of about six miles of feeder and distributing cable in this district.

The estimated cost of this work is approximately $26,000 and an appropriation has been authorized by the Executive Committee for the work.

New Niagara Falls Building

THE Telephone Company has recently purchased property on the southwest corner of Walnut Avenue and Portage Road, Niagara Falls, N. Y., having a frontage of 63 feet on Walnut Avenue and 151 feet on Portage Road, on which is now being erected a new Central Office building.

The plans and specifications, prepared by Messrs. McKenzie, Voorhees & Gmelin, call for a two-story-and-basement fireproof building, to have frontages of 63 ft. on Walnut Avenue and 60 ft. on Portage Road, and the building has been designed to carry two additional stories.

The present Niagara Falls switchboard can care for about 1,800 working lines, and while the present building can be extended somewhat in order to provide additional switchboard equipment, such radical reconstruction of the switchboard and building would be required for even a small addition that it was more economical to purchase land, erect a new building and install a new switchboard, abandoning the present office.

The initial building as planned will accommodate about 4,000 lines and can be extended on the lot so that the switchboard can be increased to 10,500 lines.

In the basement will be located the cable vault, gas engine and battery room, and the heating plant. The first floor will be occupied by the terminal room and operators' quarters, and the second floor will be taken up by the operating room and school room.

The main entrance to the building will be from Portage Road.

The Portage Road and Walnut Avenue elevations will be faced with red tapestry brick, with limestone and terra cotta trim.

The most up-to-date devices for protection from fire will be embodied in the building and adequate exits will be provided to assure the safe exit for all occupants of the building in the remote contingency of a fire occurring.

The Snyder-Gillett Contracting Co. of Niagara Falls, is the contractor for the building. Work was started early in September and it is estimated that the building will be completed in June of next year, and the Western Electric Co. will start the switchboard installation about August 1, 1914.

Digitized by Google

North Tonawanda, N. Y.

THE Tonawanda Exchange District includes the cities of Tonawanda and North Tonawanda and the rural sections adjacent to these cities, and at the time of writing there are approximately 1,900 telephones in service from the Tonawanda Central Office, this number including a growth of more than 200 telephones since the first of the year.

During the past year or two extensive additions have been made to the outside plant in Tonawanda, a total of about six miles of underground and aerial cable having been placed and large numbers of aerial wires removed. The reconcentration of the stations to the cable plant is now nearing completion and the appearance of the aerial plant is being greatly improved; in addition to this, the improvement in the maintenance conditions will reduce troubles and interruptions to the service.

In North Tonawanda the plant contains a large number of aerial wires and a few small cables which are not adequate to care for the large growth in subscriber stations which can reasonably be expected in this city in the next year or so, and additions and extensions to the underground and aerial plant will be made within the next few months.

The first step in this work comprises the construction of more than two miles of subway in Oliver Street, and this will form the feeder route for the entire northern section of the city, as well as for the rural and important toll lines entering from the north and west. An appropriation has recently been authorized by the Executive Committee for this work, and plans are now being prepared by the Plant Engineers for a maximum-sized underground feeder cable to be placed in this subway, together with branch and distributing cables to care for the local distribution throughout the developed portions of the city.

Provision has also been made for placing underground cables in the center of the city to permit the removal of the aerial plant from Webster Street and to care for the growth in this section, which is expected to be rapid.

A total of about $33,000 has been appropriated for the above underground plant, and a large further amount will be necessary for the cable work now being planned and which will be described in a later issue of *The* TELEPHONE REVIEW.

Organization Changes

CENTRAL DIVISION.

Commercial Department

Herbert F. Morgan, Resident Agent, Owego and Waverly, appointed Local Manager at Owego, vice J. W. Jackson, resigned. Mr. Morgan will report to the District Manager, Syracuse.

Leon R. Walters, Chief Clerk, Owego, appointed Resident Agent at Owego and Waverly, reporting to the District Manager at Binghamton.

Plant Department

Ralph Lester, Deskman at Auburn, transferred to Geneva as Wire Chief.

E. R. Burr, Wire Chief, Geneva, transferred to Otsego & Delaware Telephone Company at Oneonta.

K. N. Putnam, Combinationman, Seneca Falls, transferred to Wire Chief at Union Springs.

G. Brady, Wire Chief at Union Springs, transferred to Seneca Falls, N. Y.

LONG ISLAND DIVISION

Commercial Department

A new Commercial Office known as "Bay Ridge" has been established at 5110 Fifth Avenue, Brooklyn, call number Sunset 12014. This office will handle contract, collection and adjustment work in the Bay Ridge, Sunset, Bath Beach and Borough Park Exchange Districts and will be in charge of H. W. Mandeville, District Commercial Manager. The present South District Commercial Office will become a Local Commercial Office and will continue to handle commercial matters in the South and Coney Island Exchange Districts.

Effective October 27, 1913, the following changes were made in the organization:

W. F. Donnelly, appointed Local Commercial Manager in charge of the South Local Office, reporting to H. W. Mandeville, District Commercial Manager.

W. J. Fisher, appointed Chief Clerk, South Local Office.

W. H. Start, Chief Clerk, South District Office, appointed Senior Agent, Flatbush Local Office.

A. N. DeClue, Chief Clerk, Bedford District Office, transferred as Chief Clerk to the Main District Office.

F. Bente, Chief Clerk, Williamsburg District Office, transferred as Chief Clerk to the Bedford District Office.

A. P. Campbell, appointed Chief Clerk, Williamsburg District Office.

A. Morris, appointed Chief Clerk, Bay Ridge District Office.

Effective November 1, 1913, Geo. M. Greer, appointed Local Commercial Manager, Far Rockaway Local Office, vice B. B. Andrews who has been temporarily in charge and who will continue as Local Commercial Manager, Jamaica Local Office.

WESTERN DIVISION.

Commercial Department

The Medina and Lyndonville Central Office Districts have been a part of the Lockport Local Commercial District, in charge of Resident Agent, Chas. H. Arnold, Medina, N. Y. It has been decided to divorce the above mentioned Central Offices from the Lockport Local Commercial District, in order to facilitate the handling of the Company's business and create a new local district.

Mr. Arnold has, therefore, been appointed Local Manager Commercial Dept., in charge of the Medina Local District and will report direct to District Manager, Buffalo.

NEW JERSEY DIVISION.

Plant Department

Thomas J. Hanks, formerly Lineman, Elizabeth District, appointed Line Foreman Elizabeth District.

Arthur C. Alford, formerly Lineman, Newark District, appointed Line Foreman Newark District.

Joseph F. Nonemaker, formerly Lineman, Newark District, appointed Loop Foreman Newark District.

Patrick J. Gavin, formerly Lineman, Jersey City District, appointed Line Foreman Jersey City District.

Albert Jenson, formerly Lineman, Elizabeth District, appointed Line Foreman Elizabeth District.

Hugh G. Lynde, formerly Record Clerk, Newark District, transferred as Clerk to Div. Chief Clerk.

Alexander D. Smith, Engineer, resigned.

WESTCHESTER DIVISION.

Commercial Department

J. L. Timm, Division Chief Clerk, will report to the General Commercial Engineer.

F. R. Guy, Local Commercial Manager at Peekskill, N. Y., will assume the duties of Mr. Timm as Division Chief Clerk.

H. W. Cortiss, Local Commercial Manager at Mt. Kisco, N. Y., will assume the duties of Mr. Guy, supervising the Ossining and Peekskill local commercial districts.

C. L. Stockwell, Agent-in-Charge at White Plains, N. Y., will assume the duties of Mr. Cortiss at the Mt. Kisco local office.

F. H. Bull, Jr., will assume the duties of Mr. Stockwell as Agent-in-Charge of the White Plains Local Commercial Office, reporting to Mr. W. A. Bryant, Local Commercial Manager, Mt. Vernon.

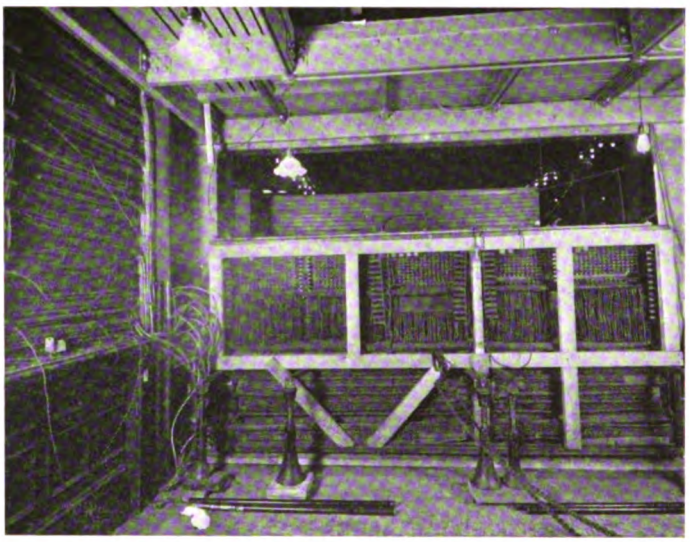
A Correction

MR. WILLIAM J. MILLER, Night Wire Chief, Troy, N. Y., is the author of the contribution entitled "Reminiscences," which appeared on page 275 of our October issue and which was erroneously signed "William J. White."

We greatly regret this error and offer our apologies to Mr. Miller.

We shall be glad if our readers will take the trouble to correct the signature to the article on the copies of last month's magazine which they have received.

Digitized by Google



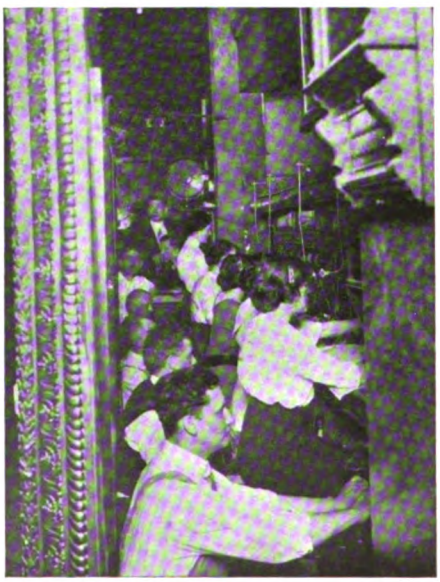
1.—OLD SWITCHBOARD RAISED EIGHT FEET ABOVE FLOOR ON JACK-SCREWS.—JUNE 24, 1913

2.—MEN HANDLING REMOVAL, IN FRONT OF OLD CROSS-CONNECTING BOX.—JUNE 24, 1913.

Installation Force Equip The New Switchboard In the Hotel Imperial

By C. J. Murphy, Installation Foreman, Manhattan

IN numerous issues of *The* TELEPHONE REVIEW we read frequently of efficiency in the various departments, dealing with organization, co-operation, commercial engineering, etc., and extolling the progress of our Telephone Society, in a social sense, interspersed here and there with an elaborate Central Office or No. 10 switchboard installation, in which the Western Electric Company holds full sway; but the deeds of the rank and file in one branch of the Plant have not been adequately represented, they having contributed practically nothing regarding themselves.



3.—SWITCHBOARD BEING MOVED WITH THE MEN AT THE JACKS AND THE OPERATORS AT THEIR POSITIONS, THE CHIEF OPERATOR STANDING AT EXTREME END OF THE SWITCHBOARD.—JUNE 24, 1913.

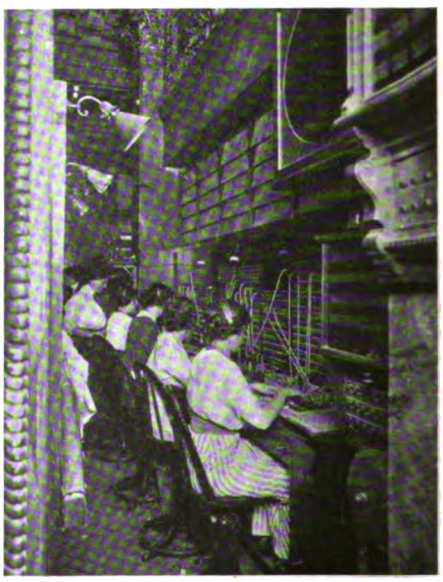
By the rank and file I mean one of the units in the field, who, as Mr. Gabay once said, "are in touch with conditions, and whose promptness in installations gives a real argument and has a most real effect upon the ability of the Commercial Department to sell service." To be brief, I refer to the installers.

However, in this era of progress, when co-operation is so rampant, the installer, to use the vocabulary of the street, "stood pat," patiently awaiting his turn to emerge from apparent lethargy in so far as appearing in the columns of our family paper, *The* TELEPHONE REVIEW, and blossoming forth with a spread head article.

His entree into the world of "space" presented itself when the Plant Department decided to install, with its own force, a new switchboard in the Hotel Imperial.

The Hotel Imperial, located at Broadway and Thirty-second Street, and one of the leading hostelries in New York, in keeping abreast with the spirit of the times, decided to install an up-to-date telephone plant, such as have recently been placed in the large new hotels of this character.

The question of location was the first problem. Anyone familiar with



6.—THE NEW SWITCHBOARD IN OPERATION.—SEPT. 5, 1913.

Digitized by Google

the plan of this handsome hotel and knowing how important a part in its operation for the wants and comfort of its patrons the telephone plays, will agree that the site of the old switchboard, centrally located on the main floor, directly behind the hotel clerk and easy of access to the employees and general public, was an ideal one and could not be improved upon. This was the consensus of opinion, and the hotel management decided accordingly to put the new switchboard where the old one stood.

To comply with the request of the management and install the new board at the old location would have been an ordinary matter were the old switchboard one of less capacity, but it was a big, cumbersome five-position switchboard that had been installed over ten years ago, having been delivered in sections and then placed in position and coupled together on the premises.

In the olden days the very thought of moving such a monster would have been considered absurd. It was put in to remain in this position until its years of usefulness ceased with future telephone growth, meaning possibly more spacious surroundings.

Owing to the age and type of this old switchboard, the interior wiring was found to be very brittle, and the multiple wiring was formed vertically, overlapping the horizontal forms of the answering jacks.

An inspection of conditions disclosed thirty-four lead switchboard cables entering the lower end of the board, with approximately six feet of slack running in back of a steam riser —a condition which would greatly hamper the removal. The cables were all butted together inside the switchboard at the point of entry and began immediately to terminate on the locknuts, which began at the butt.

This latter condition proved to be the most delicate point of the entire job. As there were so many cables, and all lead, they had no flexibility, and the least error meant the snapping of the wires from the locknuts, putting the switchboard out of service.

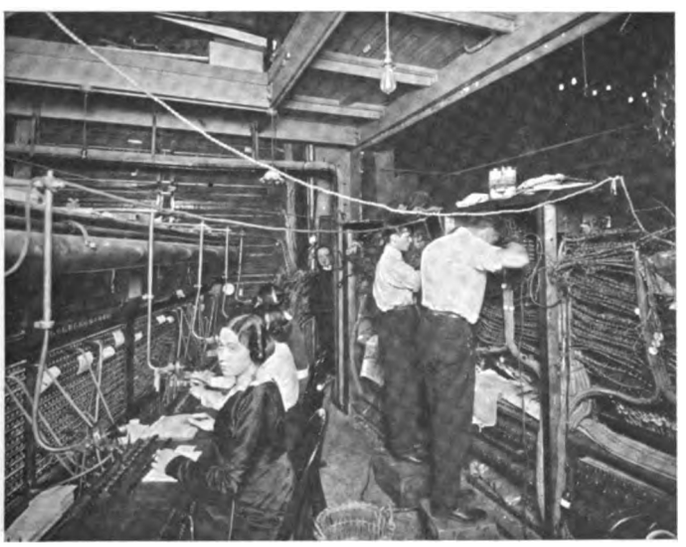
Is there any wonder then that, with these conditions confronting him, a thrill went sizzling up the spinal cord of our Plant Engineer when Mr. Townsend, the manager of the Imperial, advised him that he had decided to place the new switchboard in the exact location of the old one, the latter to be moved to an immediate locality pending the new installation, but that "service must not be interrupted for a second"?

Word was passed along to the Installation Department to proceed with the removal to the point designated by the Plant Engineer. The present-day method of the Installation Department here asserted itself in the systematic manner of handling the job. A complete frame was built around the switchboard, requiring 117 feet of lumber. Upon its completion twelve jack screws were placed equally in the front and rear of the switchboard, manned by ten men. The switchboard was raised eight inches above the floor and two 3x10-inch planks were placed underneath, with a sufficient number of two-inch galvanized iron pipes to act as rollers. The switchboard was then lowered, a block and tackle secured to it, and the moving to the desired point begun.

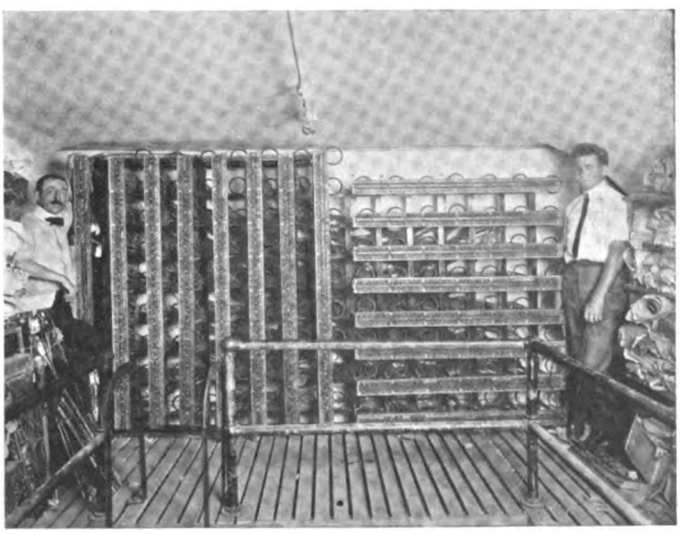
During all these maneuvers the switchboard operators remained at their respective stations, and service went on as if nothing unusual were taking place until the objective point was reached. The removal was a complete success, not a mishap of any kind occurring.

Upon the completion of the removal, arrangements were begun for the installation of the new switchboard, the first of its type ever installed by the Installation force. It has a capacity of 720 extensions and 45 trunks.

The accompanying illustrations will give a general idea of the progress of the work. The first shows the switchboard raised eight feet above the floor on the jack screws, and the second the men handling the removal standing in front of the old cross-connecting box. The third was taken as the switchboard was being moved, with the men at the jacks and the operators at their positions, the chief operator standing at the extreme end of the switchboard. The fourth shows the shop men wiring the multiple in the new switchboard; the fifth the new vertical and horizontal distributing frames, and the sixth the new switchboard in operation.



4.—SHOP MEN WIRING THE MULTIPLE IN NEW SWITCHBOARD, AND OPERATORS AT WORK ON OLD SWITCHBOARD. JULY 16, 1913.



5.—THE NEW VERTICAL AND HORIZONTAL DISTRIBUTING FRAMES.—SEPT 5, 1913.

Digitized by Google

Colds are our most common ailment; they are infectious, and if not properly cared for, may lead to serious complications

COLDS

By Dr. Alvah H. Doty
Medical Adviser of the
Employees' Benefit Fund
Committee

Colds may be prevented by observing a few simple rules of hygiene and the use of proper clothing and foot wear

As the fall and winter approach we are very forcefully reminded of the frequency with which "colds" occur, although they are by no means confined to certain seasons of the year. It is the general belief that this affection, which involves the mucous membrane of the nasal cavity and usually the throat, is due to drafts, sudden changes in the temperature, wet feet, etc. This is not the true explanation of the origin of a cold, for it is really caused by special forms of bacteria or germs which find their way to this membrane and under certain influences excite an active inflammation of these parts. Therefore, a cold is an infectious disease, and transmissible from one person to another.

In a previous article relating to tuberculosis it was stated that a large proportion of the population of cities and closely built-up communities are carriers of the germs of this disease, but if these organisms are not too great in number, or too active, and if the resisting power of the body is good the pulmonary or lung complication may not occur and the tubercle bacilli, unable to make any headway, are destroyed and absorbed by the healthy tissue. Practically this same condition occurs in connection with a cold, although the germs which cause this affection are far more often present in the body—consequently, a cold is probably the most common ailment we have. The ordinary form of pneumonia is also due to the presence of a specific germ and is therefore an infectious disease.

This article does not admit of sufficient space to describe how satisfactorily scientific investigation has proven the value of good health in preventing the development of infection when various forms of bacteria enter the body, although a word may very properly be said here in reference to it, for it is the purpose of this article to impress upon the reader the fact that a cold is not always a trivial affair. Serious complications may take place as the result of the extension of the inflammation to adjacent membranes, as it is not infrequently followed by pneumonia, particularly in the very young and those advanced in years and in persons whose health is much impaired. Besides, at any period of life a cold may lead to deafness, chronic catarrh and other conditions which cause continued annoyance and often render those who are thus affected unable to carry out their work successfully. Very naturally our system in various ways protects against the invasion of infectious germs. The blood supplies the most important aid in this direction, for it contains little bodies known as leukocytes, which are always on guard; they are wonderful fighters and attack these germs with great ferocity. If, from impaired nourishment or other causes the function of the leukocytes is interfered with and if the various organs of the body do not properly perform their work, we suffer in many ways—particularly in connection with infectious diseases.

The germs that cause a cold may at almost any time be found in our nose and throat, but usually require some exciting cause to render them sufficiently active to induce inflammation; this may come in the form of lowered vitality, or drafts, wet feet, sudden changes of temperature, etc. Those who are in the mountains or in regions where there is but little chance of infection do not suffer from colds, although the temperature may be very low and the exposure may last for some time.

A certain form of cold is often caused by some general infection and becomes a symptom of this disease; for instance, this occurs in measles. Every mother knows that a cold in the head—particularly, if in addition the eyes are congested, may be the forerunner of this disease.

As a cold is a germ infection, it must follow a certain course and the best we can do is to lessen its severity and prevent its extension. There is a popular belief that a cold lasts three days; there is considerable truth in this, for even when properly cared for this period usually elapses before the activity of the attack ceases.

A cold is ushered in by symptoms which are so well known that they need hardly be described. In a well marked type of this affection a feeling of malaise or depression usually precedes the more active symptoms, such as chilly feelings, sneezing and dryness of the membrane, followed by a copious discharge, pains in different parts of the body and sometimes accompanied by considerable elevation of temperature. If the attack is associated with the constitutional symptoms referred to, much will be gained in the way of saving time and avoiding unpleasant complications if the patient will remain at home and in a room which is kept at an even temperature of about 70 degrees until the more active symptoms have subsided; in this way there is also less chance of transmitting the infection to others—particularly when cleanliness is observed and the discharges are promptly destroyed. This may be greatly aided by the use of thin cheesecloth, which is first boiled, then dried and cut in small pieces and used in place of handkerchiefs and afterwards burned.

If the symptoms are aggravated the family physician should be promptly sent for; otherwise, simple home remedies may be employed; for instance, in the beginning a hot lemonade, extra warmth to the body and a cathartic at bedtime are of value, for these agents stimulate the skin, liver and intestinal tract and aid in relieving the inflamed membrane and limiting the infection. A mustard foot bath at bedtime may also be useful. The diet should be light and without meat.

What is far more important are preventive measures. These may be practically applied by observing the rules of hygiene, good food, proper exercise, cold baths, etc., for all of these protect against colds by keeping the body in good, healthy condition.

Clothing should be worn suitable for the season; this has previously been referred to. Such articles as chest protectors and mufflers should be avoided, for they weaken the skin and therefore do more harm than good. It is the care of the body rather than the selection of the clothing that offers the greatest protection.

Wet feet constitute one of the most common exciting causes of a cold. Rubbers are unpopular, chiefly on account of their appearance; this is quite senseless in view of the great comfort and protection they afford in wet weather. The foot wear of today, particularly that worn by women, offers practically no protection against wet ground and pavement. Waterproof shoes for general use exist chiefly in the imagination, for the best do not keep the feet dry and are unworthy of consideration. Women are particularly susceptible to the various unpleasant conditions which may be indirectly caused by wet feet, and much suffering may be avoided if rubbers are worn during storms or when the ground is wet. Mackintoshes are also of great value in keeping the clothing dry during storms, for umbrellas at the best protect only the head and upper part of the body. If wet clothing, shoes and stockings cannot be promptly changed a cold may often be prevented if active exercise is continued until an opportunity presents itself to rub the skin briskly and put on dry garments.

It can hardly be expected that a person who has contracted a very mild cold will remain at home, particularly if it interferes with the daily work, but effort should be made to prevent further infection by avoiding undue exposure, otherwise a mild attack often becomes severe and may last indefinitely or end in some unpleasant or serious complication which might easily have been avoided if proper care was used.

Digitized by Google

The Telephone and Good Roads

AS in practically every other line of activity, we find the telephone playing a prominent part in the good roads movement carried on in several of our middle western states.

Following the example of Missouri, the citizens of Arkansas responded readily to a proclamation issued by their Governor, and on September 3 and 4, which were declared State holi-

THE BUSINESS-LIKE TELEPHONE HANGING ON A TREE WAS A FEATURE OF THE ARKANSAS GOOD ROADS WORK.—(Courtesy of *Collier's Weekly.*)

days, donned overalls, grasped the pick and shovel, and proceeded to improve the roads. Men from all walks of life participated, and the ladies did their part by caring for the culinary department.

The work was directed largely by telephone, and the accompanying illustration, for which we are indebted to *Collier's Weekly,* shows a Bell telephone attached to a tree and one of the Volunteers in the act of using it. The caption is *Collier's.*

Declined to Pay

A subscriber asked to be connected with a certain hospital in New York, but found it difficult to carry on the conversation, so the Supervisor delivered the message and the reply. It was found that a patient about whom the subscriber was inquiring had died some months previous, whereupon the subscriber said to the Supervisor, "I refuse to be charged for this call as I didn't speak to my party."—(Miss) A. M. DIETRICH, Supervisor, Newtown, L. I.

Odd Requests

STRANGE requests for information at our various Information Centres; for example:

A Manhattan subscriber called one of our New Jersey Information operators and asked if a certain subscriber was a white or colored person. The Information operator replied that she was unable to say, whereupon the inquirer explained that she was engaging a colored maid who had a very fine letter of recommendation from the person, and before accepting it at its face value she wanted to know how reliable it was. The operator offered to connect the inquirer with the party, but the suggestion was hurriedly declined.—H. M. BRUSH, Asst. Dist. Traffic Mgr., Jersey City.

"Central, please send me a baby sister," piped a cherubic voice in answer to "Number, please." A few minutes later the same childish tones came over the wire saying, "Be sure it is a white one."—(Miss) Anna Johnson, Bay Ridge.

Certain statistical information was desired regarding the population of a locality, and the figures were not contained in the latest census report. What was more natural than to ask our Chief Operator? She astonished the inquirer by readily calling off each resident family and giving the number of members in each, so that the list when footed up gave the desired data. The total arrived at was 143. This is an illustration of the high order of intelligence which distinguishes the profession of telephone operating.—F. W. WARNKE, District Commercial Manager, Elizabeth, N. J.

Information was asked to locate a man who had come into Nyack to witness a recent Firemen's Parade, but no particulars were given except his name and the fact that he was a member of an automobile party. Without even the number of the machine it was obviously impossible to locate the gentleman.—(Miss) LENA SEAMAN, Operator, Nyack.

Subscriber: "Is the Battle of Gettysburg in Cohoes today?"

Operator: "I'll refer you to the Chief Operator."

Subscriber: "Don't you know? Don't you keep posted on these things in the telephone office?"

Chief Operator: "The film is being shown at the ——— theatre."

Subscriber: (But he had hung up his receiver.)—(Miss) M. KENNEDY, Chief Operator.

Another evidence of the many uses of the telephone was demonstrated the other day, in our Bedford Village Exchange, when a subscriber called Information and asked what day of the week it was and the date, giving her reason for making such an inquiry, that her newsdealer had failed to deliver her daily newspapers for five or six days, and in consequence she had lost track of the days. The accommodating operator furnished the desired information and it is to be hoped that no church service was missed because of the newsdealer's action.—THOS. F. FLEMING, Mt. Kisco Commercial.

TELEPHONE BOOTH ERECTED BY FARMERS TELEPHONE CO., OF BROWN MILLS, N. J., ON PUBLIC ROAD FOR CONVENIENCE OF TRAVELERS.

Convenient Farmers Public Telephone

THE problem of public telephone booths in accessible places in rural districts has been solved in a large measure by the Farmers Telephone Co. of Brown Mills, N. J., a Connecting Company of the New York Telephone Co.

It has erected a building of brick and concrete, including the roof and excepting only the door, at Cooks-

Digitized by Google

1, MAKING BACK-TAPS, AND, 2, SPLICING A 600-PAIR CABLE, IN RUTHERFORD, N. J., CENTRAL OFFICE

town, for the convenience of all passers by who may have occasion to use the telephone.

The booth is of standard size, and the total cost was less than $50.

M. W. HARGROVE, Mgr.,
Farmers Telephone Co., Brown Hills, N. J.

Send Love Over the Wire

We of the Commercial Department cannot be witnesses to as many amusing incidents as the Traffic Department, but nevertheless are submitting below cases that interested us:

A lady recently called our cashier and asked if her husband had paid his bill. No, she was informed, he had not. "Well," she continued, "when he comes in, will you ask him to go over to the tax-office and get a license for the dog?"

The following letter was received from one of our subscribers: "If no additional expense is incurred, will you please drop the J from my telephone number, leaving it 505 instead of 505-J." He seemed quite surprised when he was told it would cost him $6.00 more a year.

Some people don't realize the possibilities of the telephone. The other day a dear little old lady requested the cashier to telephone for her. "And would it be possible," she whispered, leaning over confidentially, "to send love over the wire?"

MISS E. M. ALEXANDER,
Morristown Commercial Department.

Utilizing an Opportunity

The following novel method of distributing advertising blotters giving us a wide range of publicity, was inaugurated this fall in the Rochester Local Office:

On the first registration day the Agents were given a package of advertising blotters to be left at each of the election booths in their territory. There are one hundred of these booths in this city. The election clerks use a great many blotters, and are always very anxious to get them. They are used continually, and are left lying around on the tables, so that the 47,000 men who register and vote in this city have ample time to read our advertisement on them as they pass through "the Mill," as the questions you are required to answer by the new election law might well be termed.—B. F. GIBSON, Chief Clerk, Com'l Dept., Rochester.

Diagnosis by Telephone

The family physician was being consulted by telephone relative to a slight cold that the infant daughter had contracted. During the talk as to the nature and quality of the symptoms, the young lady in question toddled over to her mother's side and was seized with a characteristic coughing attack. This was distinctly heard at the other end, and was sufficient for the doctor to prescribe very efficaciously without any conjecture as to the source of the congestion.—C. N. ELLIOTT, JR., Coml, Passaic.

A Narrow Escape

On the afternoon of September 18 a Standard Oil auto truck carrying two 500 gallon tanks of gasoline caught fire in a garage at Glen Street, Town Path, Glen Cove, L. I.

Realizing the danger to surrounding property, the chauffeur, with rare presence of mind, ran his machine up the Town Path (which at this point is a steep grade), but he stopped it almost directly under our 100 pair underground and aerial cable, which supplies service to the Piping Rock Colony and other subscribers in the Locust Valley section. The terrific heat and flames from the burning gasoline had almost melted the sheath from the cable, when the brakes on the machine burned out and it backed down the hill over our manhole which contains a 200 pair 19 gauge cable.

RUTHERFORD, N. J., TROUBLEMAN ROUTING A SWARM OF BEES FROM A TRUNK AERIAL CABLE BOX. THIS WAS THE SECOND SWARM IN TWO WEEKS.

The burning gasoline spread clear across the street and ran through the perforated cover into the manhole. A later inspection, however, showed that this did no damage.

The local fire department responded quickly to an alarm and did good work in saving nearby property. The truck was a complete wreck, and the garage and a house adjoining it were badly damaged. Our plant escaped with two scorched poles.—F. Menneg, Splicing Foreman, Long Island.

Digitized by Google

Telephone Let Husband In

A new use for telephone service, and an additional talking point for canvassers was found by the Hamburg, N. Y., Commercial office the past month.

A subscriber in Hamburg returned home from a protracted meeting late at night, and found himself without the necessary latch door key by which he might gain entrance to his home. Ringing the door bell repeatedly and securing no response and walking about the house calling his wife's name availed him nothing. As a last resort, against the necessity of having to go to the hotel for the night, he went to the nearest Bell telephone, and put in a call for his house. The telephone call was answered and the subscriber's wife was requested to come down and open the door so that her husband might get in.

Thus was Bell service proven to be a first aid in maintaining the respectability of a home.—W. S. Mason, Local Manager, Hamburg, N. Y.

The Yellow Envelope

In spite of the general practice of telephoning telegrams, the little yellow envelope is in the minds of some people still an inseparable part of the telegraph message. Recently a telephone recorder at a joint office, after obtaining connection with the addressee's telephone, made the usual announcement—"This is the Western Union, we have a telegram for Mr. ———" "All right," was the response, "please open it and read it."—E. N. Bull, Local Manager, Poughkeepsie.

A Bargain Hunter

Some people seem to be imbued with the bargain hunting and stamp collecting habit to such an extent that unless they see that an article has been marked down and know that the merchant gives trading stamps, they will refuse to make a purchase.

Some time ago one of these bargain stamp hunting fiends came into one of our offices and inquired the cost for telephone service at his residence. On being given the desired information, he refused to do any business with the telephone company, saying—"I'll go to —— —— dry goods company. I can get a cheaper rate when they have a sale and besides, I'll get trading stamps." No amount of explanation could convince him that the dry goods company could not contract with him for telephone service, as he said he had seen the girls at the big table working the telephone there.—W. T. Maier, Orchard Commercial.

"Telephone Salesmen"

The necessary requisites of the successful Telephone-Salesman, I should say, would be as follows:

T act
E nergy
L oyalty
E nthusiasm
P atience
H onesty
O ptimism
N erve
E fficiency.

A. V. Sedgwick,
Mount Vernon Commercial.

Building Toll Lines on Long Island

THE four very interesting pictures printed below illustrate some novel features in toll line construction

In order to stop the team, in case the wires become tangled at the reels, it is necessary for the reel tender to be able to communicate at all times with the man walking beside the running board. A ground return telephone circuit is used for this purpose. This circuit passes from a ground at the reels, *out over the wires being run,* down a piece of wire used as a tail line for the running board, to an iron spike on the shoe of the man at the running board, and back to ground.

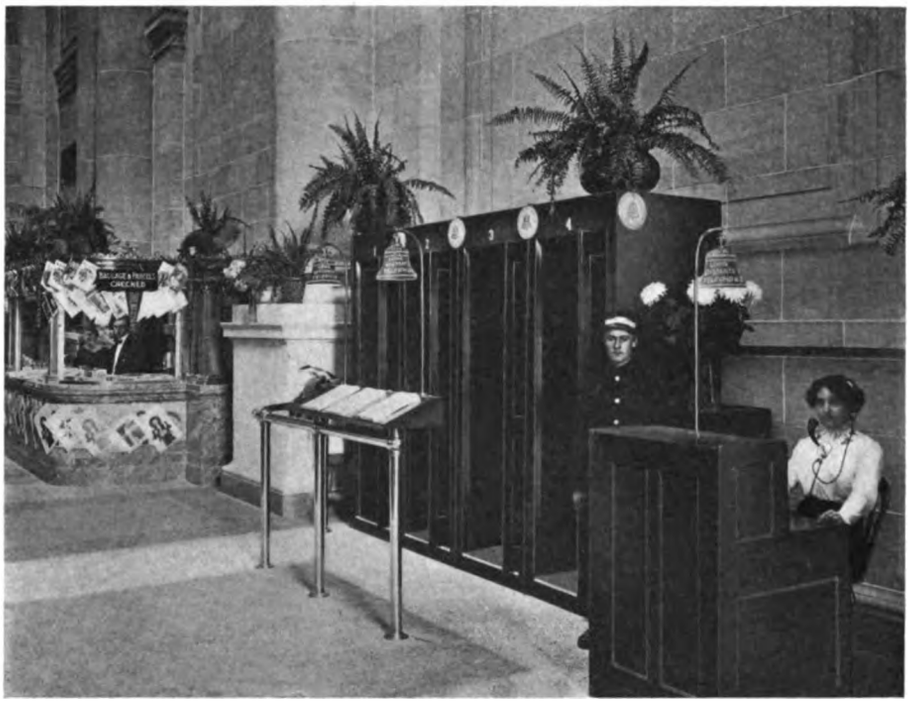
ERECTING POLES.

MAKING A TRANSPOSITION.—ALL TRANSPOSITIONS, INCLUDING PHANTOMS, ARE THROWN IN WITHOUT CUTTING THE WIRE.

RUNNING THE WIRE.—REEL TENDER.

RUNNING WIRE.—MAN AT RUNNING BOARD.

Digitized by Google



N. Y. TELEPHONE CO.'S ATTENDED PUBLIC TELEPHONES IN SCHENECTADY RAILWAY WAITING ROOM

Telephone Equipment in Railway Waiting Room

THE new Schenectady Railway combined waiting-room-and-office-building was opened at 12 o'clock noon, October 21, 1913. This building is one of the handsomest structures in Schenectady and was erected at a cost of $162,000. It is absolutely fireproof, the only wood used in its construction being the doors and casings.

The building is located at the corner of State and Lafayette Sts., and has two fronts, one on State St. where the main entrance is, and one on Lafayette St. The front part, on State St. is the main waiting room. This room is 96 feet deep and about 30 feet wide. From the tile floor to the top of the arch, which extends its entire depth, is 45 feet. There are 18 solid mahogany benches on the floor with seating room for 125 persons.

On the right as one enters from State St. is located the ticket office of marble and glass, and adjoining the same are the public telephones consisting of four booths, installed and operated by the New York Telephone Co.

The telephones are in charge of an attendant from 8 A. M. to 11 P. M., after which hour they are operated as automatics. The booths are of the folding door type and are finished in mahogany, as is also the operator's desk, all of which are separated from the waiting room by a handsome brass railing. On the top of the railing is a mahogany desk on which are kept the various local and long distance directories. At each end of the desk and over the attendant's desk are located standard blue bell illuminated signs.

The office building in the rear of the waiting room is equipped with a 90-line mahogany P.B.X. switchboard connected with which are 5 trunks and 48 stations. The telephone equipment is very complete and is up-to-date in every particular.

F. M. Cozzens,
Local Manager, Schenectady, N. Y.

"Watch Us Grow"

THE accompanying photograph of map and the cards used therewith, gives a very good idea of the display that has been attracting a great deal of attention in the Brockport Commercial Office window.

The main part of this display consists of a large blue print map of the Village on which has been inserted red-headed tacks to show the location of each telephone inside of the corporate limits.

The cards shown are only a part of a series which are changed every few days. They read as follows:

"Watch the red spots grow."

"Every additional spot means one more BELL TELEPHONE which you can reach."

"Step inside and ask us about BELL TELEPHONE SERVICE. It may not cost as much as you think."

"Every Red Spot shows the location of a BELL TELEPHONE."

"Would not a BELL TELEPHONE in your home be very useful to you?"

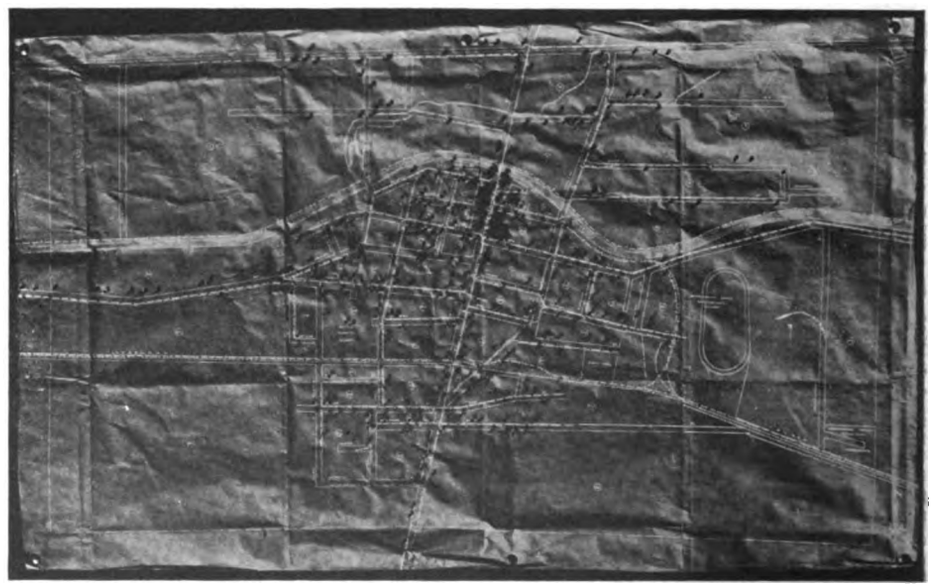
"Think of the many things it would do for you. It is a convenience you should not be without."

"We will gladly give you information inside. BELL SERVICE costs as low as a few cents a day."

D. V. Bradley,
Local Manager, Brockport.

More Telephone Troubles

"What? Ye can't hear what I'm sayin'? Well, thin, repeat what ye didn't hear an' I'll tell it ye again."—*Punch.*



WINDOW DISPLAY IN BROCKPORT LOCAL COMMERCIAL OFFICE. MAP OF THE TOWN ON WHICH LOCATION OF TELEPHONE SUBSCRIBERS IS INDICATED BY COLORED PINS.—"WATCH US GROW."

Digitized by Google

Mount Vernon's Great White Way

MOUNT VERNON celebrated the opening of its Great White Way (Fourth Avenue) on Thursday evening, October 9, the Mayor turning on the lights at 8 P. M.

Much enthusiasm was shown not only by the Mount Vernonites, but by many people from surrounding cities and towns. It has been estimated that about 60,000 turned out.

There was plenty of music with a parade at 9 P. M., buildings were decorated and windows especially dressed for the occasion, and our Company assisted several of the merchants in making special displays, incidentally boosting our "SHOP BY TELEPHONE" slogan. One of the merchants, Arthur Dummet, Inc., Florists, captured first prize (Silver Cup) for the most educational display.

Our Company also had a display of its own in a vacant store which was loaned by Chas. Wintermeyer, one of Mount Vernon's progressive merchants. This display consisted of a picture 4 x 6 feet showing Alexander Graham Bell at work making his first Telephone, and in the upper right hand corner was our latest model desk-set ("His Dream Realized"), held by a mechanical hand which constantly revolved by means of electric current. The frame was artistically draped with an American flag, the foreground of the window being dressed in a dark blue velour upon which several of our latest style desk-sets were arranged.

During the evening about 50,000 pieces of advertising literature were given out. Among these were *The* TELEPHONE REVIEW covers which as we can all imagine were eagerly accepted.

Since this celebration we have received letters of thanks from the merchants with whom we co-operated in making their displays a success.

Once again has our Company by its ever-ready co-operation made many friends.

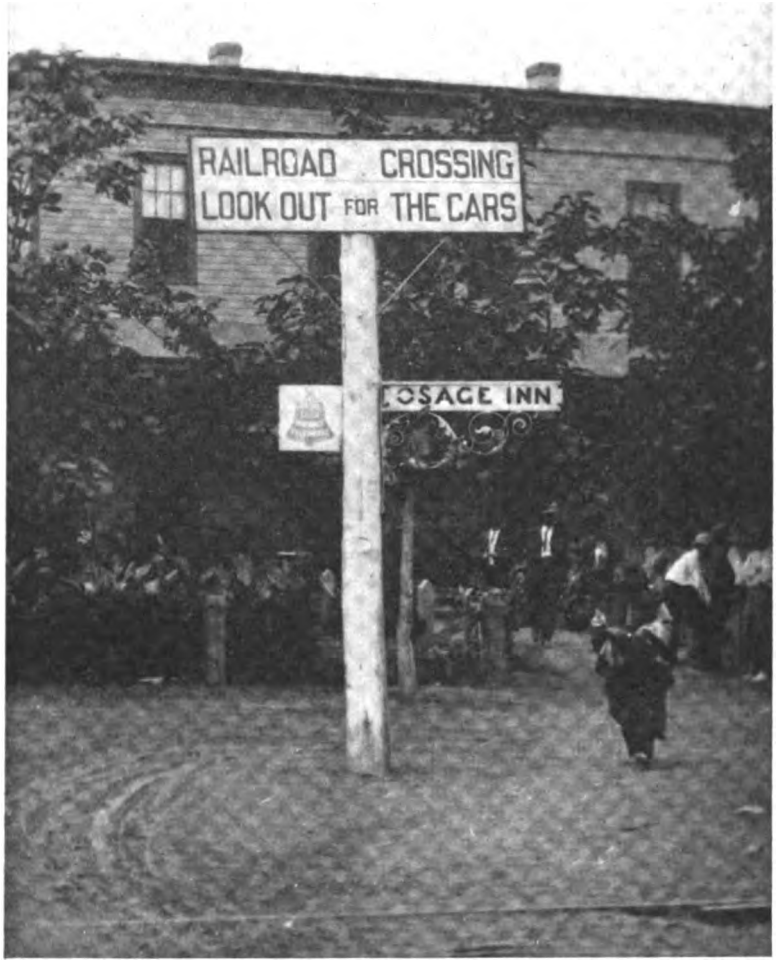
A. V. SEDGWICK,
Mt. Vernon Com'l.

Albany High School Science Club Visits Main Central Office

THE Albany Local Office, the largest in the Hudson Division, is becoming somewhat of an educational center. Last Spring three lectures were given by the Local Manager in the Old High School Auditorium. Upon the opening of school this fall, the "Science Club" resumed its meetings, and its first outside "Inspection" trip was a visit on October 21 to the Main Central Office.

A dozen to fifteen of the brightest, most earnest and most enthusiastic young boys from fifteen to twenty years of age met in the Office of the Local Manager. After a short lecture outlining the organization of the New York Telephone Company, the general functions of each department and the *esprit de corps* which makes us in the public eye of Albany appear almost as a large unit organization, they were escorted through the building. It was surprising to note their interest in the part our Division Collection Attorney plays in the organization, although their keenest pleasure was experienced in the terminal and operating rooms.

In addition to such trips as the above, the Local Manager never fails to take complaining or dissatisfied subscribers through the Central Office before they leave the building. The time spent is most profitably invested.



SCENE AT AN OLD OKLAHOMA R. R. STATION.—THE INDIAN SQUAW IN FOREGROUND HAD PARTAKEN OF TOO MUCH "FIRE-WATER."

Under the Sign of the Blue Bell

AS we were passing through a village in the Indian country (Oklahoma) this summer, I had the good fortune to take a very interesting snapshot with my camera from the rear platform of our train.

I immediately thought it might be of interest to *The* TELEPHONE REVIEW.

The picture is not posed, and for that reason is the more interesting.

It is characteristic of this part of the country that such places as the Osage Inn are popular among Indians and "Whites" alike, and you will note that it has Bell service the same as the more pretentious hostelries in the north.

The Indian squaw shown almost directly under the sign was just a little "tipsy."

FRANCIS WILLIAM VREELAND.

Digitized by Google

ENGINEERS

INSPECTORS

N. Y. T. A. C.

Baseball

WITH the ringing down of the curtain on the baseball season of 1913, a new batch of champions was ushered before the members of the New York Telephone Athletic Club. All hail the Inspectors! They came into the league unheralded, and after "inspecting" the brand of baseball played by the various teams, proceeded to wipe up the diamond with their opponents. Right from the opening of the season they jumped to the front and were never headed.

The close of the first half of the season found the Inspectors with 5 victories and no defeats, while during the second half they drew still further away. To finish with the grand percentage of .917 is indeed a meritorious performance, and a great deal of credit is due Manager Flincker for the capable manner in which he handled the team.

The Plant Construction team, the old champions, put up a good battle for the highest honors but had to be content with finishing second. Manager Kirkwood tried all kinds of combinations in an effort to produce a winner but had to bend the knee to the new champions twice, these defeats practically putting the Constructionites out of the running.

The "Trolley Dodgers" of Brooklyn Plant finished third, just nosing out the Plant Accounting aggregation. Managers Rodgers and Dillon are to be congratulated on the good showing made by their respective teams as both took charge late in the season and attained excellent results.

Fifth and sixth places were captured by the Installers and Engineers respectively, while the Night Force managed to draw down seventh. To

PLANT ACCOUNTING

BROOKLYN PLANT

the Building and Supplies team belongs the "Cellar Championship."

FINAL STANDING

	W.	L.	P. C.
New York Inspectors.....	11	1	.917
Plant Construction	9	4	.696
Brooklyn Plant	7	4	.636
Plant Accounting	8	5	.615
New York Installers.....	6	8	.421
Engineers	4	7	.363
New York Night Force...	1	9	.100
Buildings & Supplies.....	0	10	.000

Tennis

Owing to recent rains it was impossible to complete the tennis schedule, and publication of the final results will have to be deferred.

Track and Field Athletics

The Club has joined the Amateur Athletic Union and hopes to have some of its athletes competing in open competition soon.

How would a dual meet between the N. J. T. A. C. and the N. Y. T. A. C. sound? It's a possibility, so brush up your speed this winter.

Club Rooms

A great deal of talk has been heard on the subject of club rooms. Very soon there will be something better than talk, namely, action, and within the next month it is hoped that the new rooms, fully equipped with gymnasium apparatus, etc., will be a reality.

Third Annual Entertainment and Ball of New York Telephone Employees

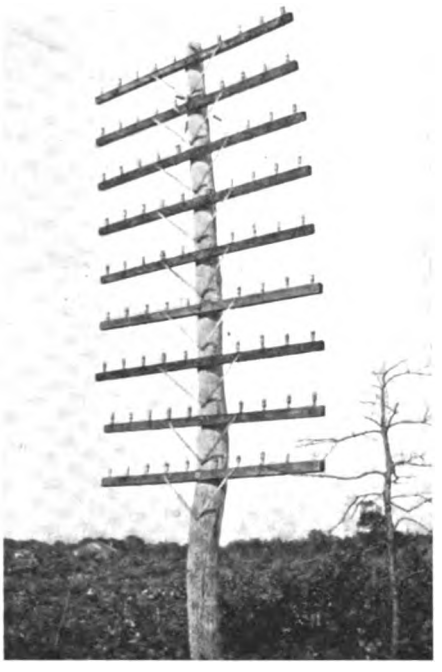
THE third annual entertainment and reception of the New York Telephone Company employees will be held at the Palm Garden, 58th Street, between 3rd and Lexington Avenues, Manhattan, on Friday evening, January 30, 1914.

The members of the arrangement committee desire to state that they have been appointed by no special organization or club connected with the company, but are conducting these affairs for every individual employee, in order that one night each year may be a get-together one. They therefore desire the hearty co-operation of all and would like to hear from any who will serve as members of the various sub-committees. Volunteers are desired from all departments, and are requested to send their names and that of their department to W. G. Farrell, 332 West 131st Street, New York City. It is the earnest desire of the committee to duplicate former successful occasions of this kind. An attractive entertainment will be furnished, and the music for dancing will be of the best.

The proceeds of the entertainment and reception are set aside to provide

Digitized by Google

Scenes on Long Island



THE HEAVIEST OPEN WIRE TRUNK LINE ON LONG ISLAND, CARRYING 89 BARE COPPER WIRES AND CONSISTING OF 56 CIRCUITS, 12 OF WHICH ARE PHANTOM TRUNKS.

funds for these affairs from year to year. A full written report of each is sent to officials of the company, and the money is turned over to the Company Treasurer, who holds it for similar entertainments in the future.

The price of tickets is fifty cents each, and box seats one dollar. Tickets may be obtained from any member of the committee, James Divisich, Jr., Room 709, 24 Walker St., or at any of the various Wire Chiefs' offices, Installation Force or Inspection Force centers. Box seats may be secured from G. A. Corson, Room 1151, 15 Dey St.

The Care of Tools

IN connection with the careful performance of their duties, I would like to suggest to mechanics in the company's employ that they consider the subject of tools. By mechanics I mean installers, inspectors, troublemen, splicers, cablemen, and pole line men.

Recently in the Long Island Division the half yearly tool check was taken, and in the inventories from the field forces the number of notations that certain tools were lost, stolen or broken was astonishing.

The company furnishes tools to its mechanics free and unlike many other large corporations, does not even require a deposit on them. If compelled to purchase them before securing a position, some men might be more careful.

Of course when an employee through carelessness or negligence loses any tools, he is expected to make good the loss. In many instances, however, an item is canceled or depreciated from an employee's account due to the fact that a tool may be rendered worthless, by breaking for example. There is little doubt that fifty per cent. of such cases could be avoided.

If all employees would take proper precautions, the large amount of money spent to replace lost or broken tools would soon be reduced to a minimum.

"HEAVY" ARTILLERY" PLACING A 40-FOOT "STICK."—BAY SHORE, L. I.

It is to be hoped that the various outside forces will take a "brace" in this respect and by ameliorating present conditions benefit both the company and themselves.

CHARLES P. KNUDSEN,
Cons. Dept., L. I. Division.

Accidents and How to Avoid Them

ON account of the number of painful accidents occurring from carelessness in handling hot solder, paraffine or wax, it might not be amiss to mention a few important "don'ts" to those who have to use such material in their daily work.

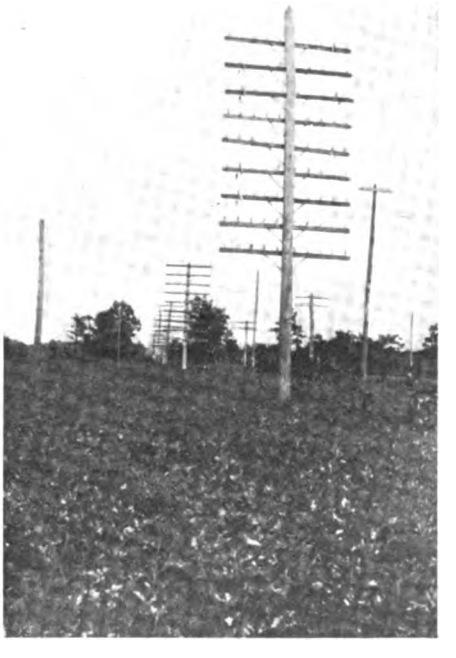
Never pump air into the furnace while the paraffine or solder pot is on it. If you do, some time the hot wax or metal will splash over your arms or face, or the wax will run down the side of the pot and catch fire.

Do not boil out your muslin while the paraffine is on a lighted furnace. The drippings from the muslin run down the side of the pot and catch fire and send many men to the hospital.

Do not stand your furnace, paraffine pot or solder pot on a manhole cover. Somebody will accidentally step on the cover and shake the paraffine pot so it will catch fire or capsize the hot paraffine or metal on top of the man in the hole or over your own legs and feet.

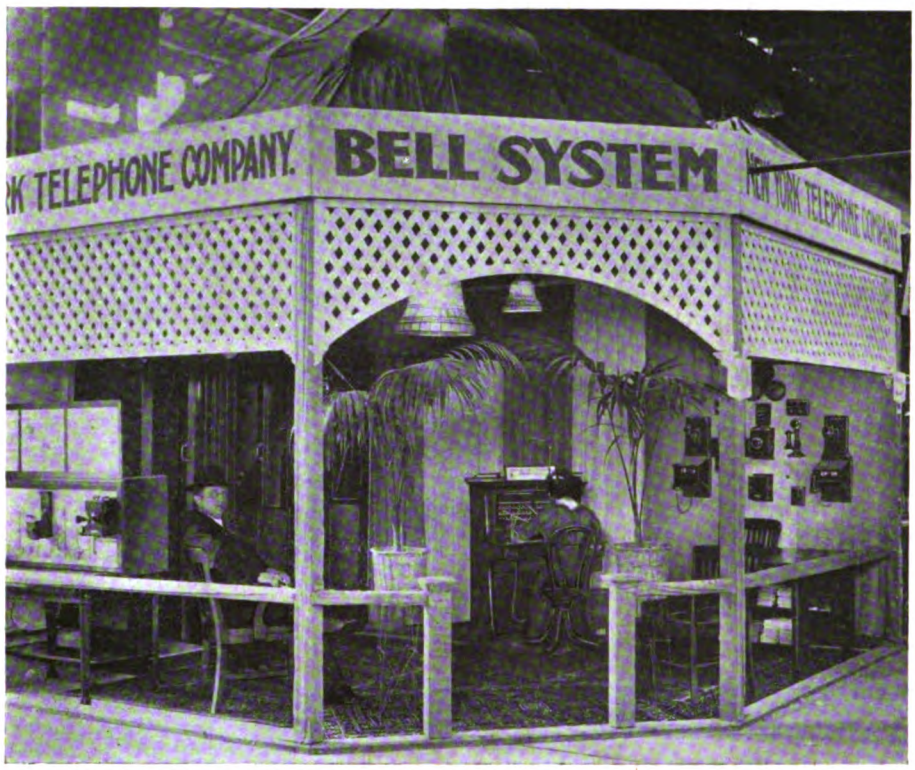
Never put a bar of solder into molten solder without making sure the bar is perfectly dry. If it is damp or wet it will cause the solder to spatter on your hands and face and in your eyes. As an extra precaution always turn your head with your face away from the pot while you allow the solder to melt into it.

It is the simplest thing in the world to be careful, and that is all that is necessary.



PHANTOM POLE AT WEST SAYVILLE, L. I. FOREIGN CURRENTS: WIRELESS TOWER, 25,000 VOLTS; HIGH TENSION LINE, 14,000 VOLTS; COMMERCIAL LIGHT, 2,200 VOLTS; WESTERN UNION.

Digitized by Google



N. Y. TELEPHONE CO.'S EXHIBIT AT ROCHESTER INDUSTRIAL EXPOSITION

Rochester Industrial Exposition

THE fifth annual show of the Rochester Industrial Association was held at Exposition Park, Rochester, N. Y., from September 15 to September 27 inclusive.

This Exposition has had a steady growth since its inception five years ago, and is now acknowledged to be one of the best shows of its kind in this part of the country. The Horse Show which was held in connection with the Industrial Exposition, has attained national prominence on account of the quality and number of entries. The best known stables in this country and Canada were represented. The Show ran for five days, with a daily attendance of from ten to fifteen thousand people, and prominent visitors agreed that they have never seen a better outdoor show anywhere in the country.

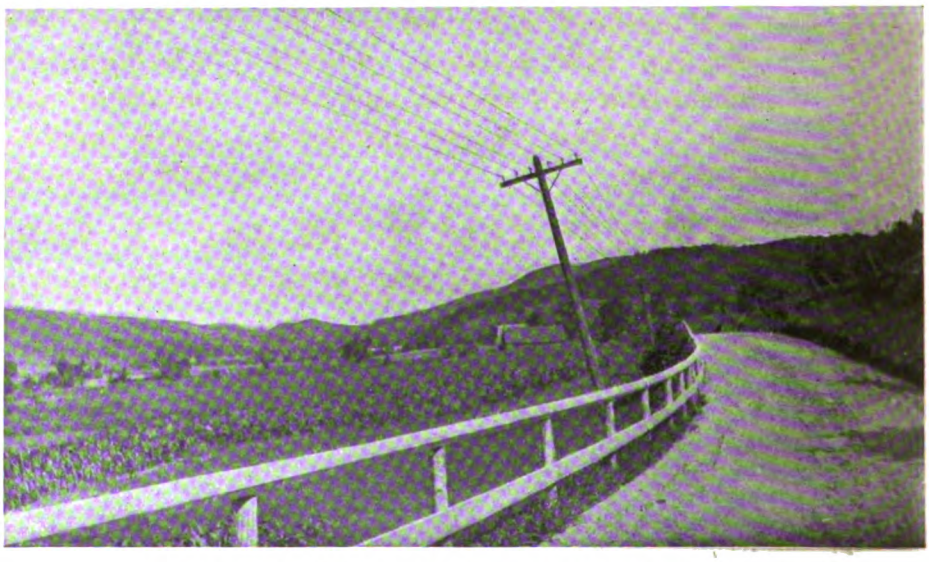
The four large exhibition halls were filled with interesting working exhibits of Rochester's largest manufacturing and mercantile houses, one of the most prominent of which was that of the New York Telephone Company. The accompanying photograph will serve to illustrate the attractiveness of this exhibit. The equipment consisted of an 80 Line No. 4 Lamp Board, and wired for 10 trunks and 40 stations, 3 folding-door type booths, equipped with coin box sets, so that the stations could be used at night after the operator left. This was done by trunking these lines direct to the Central Office. In addition to the above, the lines from the exhibitors' telephones,—that is, subscribers who had contracted for service at exhibitors' rates, also terminated in this switch-board.

It is estimated that approximately 225,000 people attended the Show.

B. F. Gibson,
Chief Clerk, Rochester Commercial.

A Glimpse of Canada

THE accompanying illustration is from a photograph of the last telephone line across the Canadian border at Beecher Falls, N. H. This line connects the Custom offices in the United States with the Canadian offices. My car was across the boundary line at the time this picture was taken and the view is looking towards the Province of Quebec. Unfortunately the good road shown extends only a mile into Canada.—Wm. F. Shellworth, Wire Chief, Bergen-Bayonne.



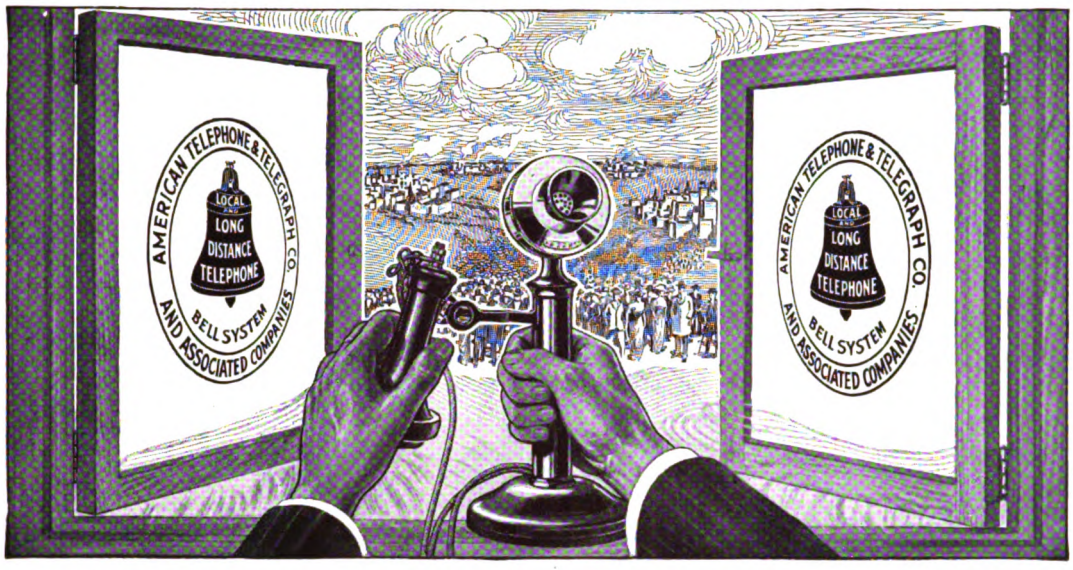
ACROSS THE CANADIAN BORDER AT BEECHER FALLS, N. H.

Telephone Man Gives Talk to Bank Employees on "Telephone Courtesy"

THERE is no doubt that "The Voice With the Smile Wins" is being appreciated more and more as time goes on, and the word "Courtesy" is becoming a by-word among telephone users.

Recently a salesman had occasion to interview the President of a large Bank regarding the congestion of his service on account of insufficient equipment and in the course of their conversation, the matter of the Telephone Company's educational advertising was brought up. As a consequence, it was arranged to have our salesman give a little talk to the Bank employees along the lines of telephone courtesy and the proper handling of telephone calls. The talk was accepted by the employees in the most friendly spirit and numerous questions were asked. At the request of the Bank's President, literature on courtesy was sent to him for distribution. He expressed himself as being very much pleased and interested and requested that his thanks be extended to the Telephone Company for the courtesy shown.—H. H. Pentz, Local Commercial Manager, Spring.

Digitized by Google



The Telephone Doors of the Nation

WHEN you lift the Bell Telephone receiver from the hook, the doors of the nation open for you.

Wherever you may be, a multitude is within reach of your voice. As easily as you talk across the room, you can send your thoughts and words, through the open doors of Bell Service, into near-by and far-off states and communities.

At any hour of the day or night, you can talk instantly, directly with whom you choose, one mile, or a hundred, or two thousand miles away.

This is possible because 7,500,000 telephones, in every part of our country, are connected and work together in the Bell System to promote the interests of the people within the community and beyond its limits.

It is the duty of the Bell System to make its service universal, giving to everyone the same privilege of talking anywhere at any time.

Because as the facilities for direct communication are extended, the people of our country are drawn closer together, and national welfare and contentment are promoted.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

Digitized by Google

"Make Your Purchases By Telephone"

"I make my telephone pay," said the wife of a prominent lawyer recently. "By using it to take advantage of the advertised bargains offered by the stores, I have saved enough in the last two years to pay for my telephone service many times over."

The telephone provides a means for the busy housewife to do her shopping easily and conveniently. Shopping by telephone is as satisfactory as shopping in person, and leaves *much more time* to be devoted to household duties and to pleasures.

Do <u>You</u> buy by Telephone?

NEW YORK TELEPHONE COMPANY

Digitized by Google

THE TELEPHONE REVIEW

Vol·4·No·12 December·1913

THE TELEPHONE—The Greatest Gift of Mankind to Man.

Digitized by Google

Telephone Courtesy—A Business Asset.

Bad 'Phone Manners Lost Order.

A certain textile house in this city lost a $3,500 order yesterday through a display of bad telephone manners on the part of the girl in charge of the house switchboard. According to the buyer, he called up this house rather early in the business morning and asked to speak to the manager. The girl had evidently been instructed to take the names of persons calling, but had not been told how to do it. Instead of asking, "May I have your name?" or "Who is speaking, please?" she demanded sharply, "Who are you?" To this the buyer said he answered: "I'm a man who is through buying from your house as long as you are there." He said that he was not going to ask her discharge, but that he was going to buy somewhere else until the house got a girl who knew that "the voice with the smile wins."

New York Times, Oct. 28, 1913.

Incidents like the above prove the importance of telephone courtesy as a business asset.

Again we suggest our little motto, "The Voice With The Smile Wins," and its adoption by every telephone user who would get the most out of his telephone service in dividends of good will, closer friendships or increased business, based on courteous, satisfactory treatment of telephone buyers.

Telephone users who maintain over the telephone the same standards of courtesy that obtain in a face-to-face conversation, build for themselves a business asset of lasting value.

"The Voice With The Smile Wins."

NEW YORK TELEPHONE CO.

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV NEW YORK, DECEMBER, 1913 NUMBER 12

The TELEPHONE REVIEW
ISSUED MONTHLY

Published by the

NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to
J. D. Newman, Editor.

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

VOL. IV DECEMBER, 1913 No. 12

The Christmas Spirit

THE thoughts of all are turned towards Christmas. Americans are said to be commonly regarded by foreigners as a people devoid of sentiment and engaged solely in the pursuit of wealth. There is no reason why these two should be inimical, and in proof that they are not, one need only steal stealthily into homes where there are children, like Santa Claus does, and witness what happens early Christmas morning. The whole family suddenly grows as young as the smallest child, and tenderness, joy and good-will make lighter the heaviest hearts and find expression in deeds of kindness which extend far beyond the home circle.

Every year as Christmas comes a new generation of children have their first bitter experience when impious tongues whisper "There is no Santa Claus!" Some believe it, and the springs of their eternal youth are dried up forever; others who have the eyes of faith know that it is not so, and these are they who have the Christmas spirit all the year.

We are glad to join with the *New York Sun* in reproducing, as they have done every year since 1897, their editorial in answer to this old question, "Is there a Santa Claus?"

We take pleasure in answering at once and thus prominently the communication below, expressing at the same time our great gratification that its faithful author is numbered among the friends of *The Sun*:

"*Dear Editor*:—I am 8 years old.
"Some of my little friends say there is no Santa Claus.
"Papa says 'If you see it in *The Sun* it's so.'
"Please tell me the truth, is there a Santa Claus? "VIRGINIA O'HANLON.
"115 West Ninety-fifth Street."

Virginia, your little friends are wrong. They have been affected by the scepticism of a sceptical age. They do not believe except they see. They think that nothing can be which is not comprehensible by their little minds. All minds, Virginia, whether they be men's or children's, are little. In this great universe of ours man is a mere insect, an ant, in his intellect, as compared with the boundless world about him, as measured by the intelligence capable of grasping the whole of truth and knowledge.

Yes, Virginia, there is a Santa Claus. He exists as certainly as love and generosity and devotion exist, and you know that they abound and give to your life its highest beauty and joy. Alas how dreary would be the world if there were no Santa Claus! It would be as dreary as if there were no Virginias. There would be no childlike faith then, no poetry, no romance to make tolerable this existence. We should have no enjoyment, except in sense and sight. The eternal light with which childhood fills the world would be extinguished.

Not believe in Santa Claus! You might as well not believe in fairies! You might get your papa to hire men to watch in all the chimneys on Christmas Eve to catch Santa Claus, but even if they did not see Santa Claus coming down, what would that prove? Nobody sees Santa Claus, but that is no sign that there is no Santa Claus. The most real things in the world are those that neither children nor men can see. Did you ever see fairies dancing on the lawn? Of course not, but that's no proof that they are not there. Nobody can conceive or imagine all the wonders that are unseen and unseeable in the world.

You tear apart the baby's rattle and see what makes the noise inside, but there is a veil covering the unseen world which not the strongest man, nor even the united strength of all the strongest men that ever lived, could tear apart. Only faith, fancy, poetry, love, romance, can push aside that curtain and view and picture the supernal beauty and glory beyond. Is it all real? Ah, Virginia, in all this world there is nothing else real and abiding.

No Santa Claus! Thank God! he lives, and he lives forever. A thousand years from now, Virginia, nay, ten times ten thousand years from now, he will continue to make glad the heart of childhood.—*The* (N. Y.) *Sun*.

We wish all our readers a Merry Christmas and a Happy New Year!

A Clean Slate

The Following Routine Complaint Report for November is the Record of this Achievement

CENTRAL DIVISION	Elmira District	Syracuse District	Utica District	Total
Actual Number Written Complaints....	**0**	**0**	**0**	**0**
Number Stations	19929	32946	23495	76370
Number Written Complaints per 100 Stations	**0**	**0**	**0**	**0**

THE Traffic Department in the Central Division has accomplished a remarkable achievement; it is one that never can be excelled. There is credit enough in it for every one.

The 1,262 operators in the Central Division deserve the highest praise and commendation for this clean slate. These 1,262 operators were serving the public in a Division comprising about one-third of the entire territory of the company; this territory embraces 17 of New York State's big counties, in which there are 55,000 telephone subscribers having 76,370 telephone stations.

Among the large exchanges in the Division are Syracuse with 18,500 stations; Utica with 8,000 stations; Watertown with 4,300 stations; Binghamton with 4,600 stations, and Elmira with 3,900 stations, and there are other smaller exchanges scattered throughout the territory serving the remaining 27,000 stations.

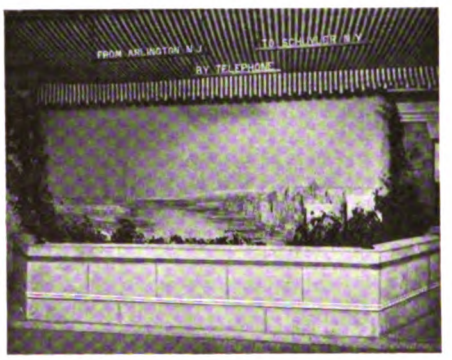
During the month there were approximately 14,400,000 telephone calls, local and toll. Any one of these operators failing in a single instance to give prompt and satisfactory connection might have spoiled this perfect record. Full credit, therefore, belongs to each one individually, whether she was located in the largest city or in the smallest hamlet, whether she was working during the day or during the night. Each one has a right to be proud of her record.

Digitized by Google

Two Medals Awarded The New York Telephone Co.

At the International Exposition of Safety and Sanitation

Booth Representing Telephone Exchange at Arlington, N. J.



Panorama Representing the Hudson River and Scenery on Both Sides Lying Between Arlington and Schuyler.

Booth Representing Schuyler Exchange, Manhattan.

TWO medals were awarded the New York Telephone Company at the International Exposition of Safety and Sanitation, held at the Grand Central Palace, New York, December 11 to 20 inclusive.

The first award was a gold medal offered by The Travelers Insurance Company "to the American Employer who achieved the greatest success in protecting the lives and limbs of his employees." The medal was presented to Mr. U. N. Bethell, President, on behalf of the New York Telephone Company, by the American Museum of Safety at a banquet at the Waldorf-Astoria, December 12.

The second award was the Grand Prize of the Exposition. It was given on December 15 to the New York Telephone Company for its interesting and instructive exhibit at the Exposition and for its progress in welfare work for its employees.

Of interest was the disposal of two other prizes at the same time. One was the E. H. Harriman Memorial Medal for the American railroad most successful in protecting the lives and health of its employees, which went to the Southern Pacific Company, Mr. Julius Kruttschnitt, Chairman of the Board of Directors; the other was the Louis Livingston Seaman Medal for progress and achievement in the promotion of hygiene and the mitigation of occupational diseases, which was given to the United States Steel Corporation, Mr. James A. Farrell, President.

Booth Representing Operators' Rest Room.

EXHIBIT AT INTERNATIONAL EXPOSITION OF SAFETY AND SANITATION.

Display of the N. Y. Telephone Co., Photographed in Sections.

The exhibit of the New York Telephone Company was planned and built by employees of the company, the scenic effects, however, being arranged by Arthur Voegtlin, creator of the Hippodrome spectacles.

The exhibit showed two telephone switchboards in actual operation completing calls between distant exchanges. The switchboards were installed by the Switchboard Wiring Force. One end of the exhibit represented a section of the Arlington, N. J., exchange and the other end a section of the Schuyler Exchange in New York City. Between the two ends of the exhibit was a panorama representing the country lying between Arlington and the section of New York City in which Schuyler is located. By means of clever lighting effects, the buildings on the New Jersey shore and the sky-scrapers of New York were given an appearance of realism, and even the Hudson River lying between seemed to be in action. Operators were busily at work both in "Arlington" and "Schuyler" making connections for "subscribers," demonstrating how telephone calls pass out of one exchange, over toll lines, through cables, under the Hudson River and through Manhattan, to the other exchange.

A typical rest room for operators was shown in connection with the "Schuyler" exchange.

This exhibit created intense interest among the visitors to the Exposition, and the able manner in which Miss Manz, of the Operators' School, Manhattan, and her assistants, demonstrated the operation of the switchboards and the method of handling calls, added to its value and popularity.

In her talks Miss Manz brought out clearly how the public can assist in making the service perfect. Many expressions of approval were heard in the crowds which thronged the telephone exhibit.

Obverse of Medal Awarded the N. Y. Telephone Company.

Reverse of Medal for "Greatest Success" in Protecting Employees.

Digitized by Google

The TELEPHONE REVIEW

VOLUME IV — NEW YORK, DECEMBER, 1913 — NUMBER 12

The TELEPHONE REVIEW
ISSUED MONTHLY

Published by the

NEW YORK TELEPHONE COMPANY.

U. N. BETHELL, President
F. H. BETHELL, Vice-President
H. F. THURBER, Vice-President
FORD HUNTINGTON, Vice-President
WALTER BROWN, Secretary and Treasurer
J. S. WILEY, General Auditor
C. T. RUSSELL, Counsel
J. L. SWAYZE, General Attorney
J. A. STEWART, General Manager
E. F. SHERWOOD, General Supt. of Traffic
J. S. McCULLOH, General Commercial Supt.
G. C. ALLEN, General Supt. of Plant
H. C. CARPENTER, Engineer
P. O. COFFIN, Auditor
J. A. KENNEDY, Auditor of Disbursements
A. J. NORMAN, Auditor of Receipts

Publication Office and Principal Place of Business, 15 Dey St., New York.

Address All Communications to J. D. Newman, Editor.

Subscriptions: $1.50 the year, except to employees of the New York Telephone Co., to whom copies are furnished free of charge.
Remittance should be made by check, draft or money order, payable to the New York Telephone Co.

VOL. IV DECEMBER, 1913 No. 12

The Christmas Spirit

THE thoughts of all are turned towards Christmas. Americans are said to be commonly regarded by foreigners as a people devoid of sentiment and engaged solely in the pursuit of wealth. There is no reason why these two should be inimical, and in proof that they are not, one need only steal stealthily into homes where there are children, like Santa Claus does, and witness what happens early Christmas morning. The whole family suddenly grows as young as the smallest child, and tenderness, joy and good-will make lighter the heaviest hearts and find expression in deeds of kindness which extend far beyond the home circle.

Every year as Christmas comes a new generation of children have their first bitter experience when impious tongues whisper "There is no Santa Claus!" Some believe it, and the springs of their eternal youth are dried up forever; others who have the eyes of faith know that it is not so, and these are they who have the Christmas spirit all the year.

We are glad to join with the *New York Sun* in reproducing, as they have done every year since 1897, their editorial in answer to this old question, "Is there a Santa Claus?"

We take pleasure in answering at once and thus prominently the communication below, expressing at the same time our great gratification that its faithful author is numbered among the friends of *The Sun*:

"*Dear Editor*:—I am 8 years old.
"Some of my little friends say there is no Santa Claus.
"Papa says 'If you see it in *The Sun* it's so.'
"Please tell me the truth, is there a Santa Claus? "VIRGINIA O'HANLON.
"115 West Ninety-fifth Street."

Virginia, your little friends are wrong. They have been affected by the scepticism of a sceptical age. They do not believe except they see. They think that nothing can be which is not comprehensible by their little minds. All minds, Virginia, whether they be men's or children's, are little. In this great universe of ours man is a mere insect, an ant, in his intellect, as compared with the boundless world about him, as measured by the intelligence capable of grasping the whole of truth and knowledge.

Yes, Virginia, there is a Santa Claus. He exists as certainly as love and generosity and devotion exist, and you know that they abound and give to your life its highest beauty and joy. Alas how dreary would be the world if there were no Santa Claus! It would be as dreary as if there were no Virginias. There would be no childlike faith then, no poetry, no romance to make tolerable this existence. We should have no enjoyment, except in sense and sight. The eternal light with which childhood fills the world would be extinguished.

Not believe in Santa Claus! You might as well not believe in fairies! You might get your papa to hire men to watch in all the chimneys on Christmas Eve to catch Santa Claus, but even if they did not see Santa Claus coming down, what would that prove? Nobody sees Santa Claus, but that is no sign that there is no Santa Claus. The most real things in the world are those that neither children nor men can see. Did you ever see fairies dancing on the lawn? Of course not, but that's no proof that they are not there. Nobody can conceive or imagine all the wonders that are unseen and unseeable in the world.

You tear apart the baby's rattle and see what makes the noise inside, but there is a veil covering the unseen world which not the strongest man, nor even the united strength of all the strongest men that ever lived, could tear apart. Only faith, fancy, poetry, love, romance, can push aside that curtain and view and picture the supernal beauty and glory beyond. Is it all real? Ah, Virginia, in all this world there is nothing else real and abiding.

No Santa Claus! Thank God! he lives, and he lives forever. A thousand years from now, Virginia, nay, ten times ten thousand years from now, he will continue to make glad the heart of childhood.—*The* (N. Y.) *Sun*.

We wish all our readers a Merry Christmas and a Happy New Year!

A Clean Slate

The Following Routine Complaint Report for November is the Record of this Achievement

CENTRAL DIVISION	Elmira District	Syracuse District	Utica District	Total
Actual Number Written Complaints....	**0**	**0**	**0**	**0**
Number Stations	19929	32946	23495	76370
Number Written Complaints per 100 Stations	**0**	**0**	**0**	**0**

THE Traffic Department in the Central Division has accomplished a remarkable achievement; it is one that never can be excelled. There is credit enough in it for every one.

The 1,262 operators in the Central Division deserve the highest praise and commendation for this clean slate. These 1,262 operators were serving the public in a Division comprising about one-third of the entire territory of the company; this territory embraces 17 of New York State's big counties, in which there are 55,000 telephone subscribers having 76,370 telephone stations.

Among the large exchanges in the Division are Syracuse with 18,500 stations; Utica with 8,000 stations; Watertown with 4,300 stations; Binghamton with 4,600 stations, and Elmira with 3,900 stations, and there are other smaller exchanges scattered throughout the territory serving the remaining 27,000 stations.

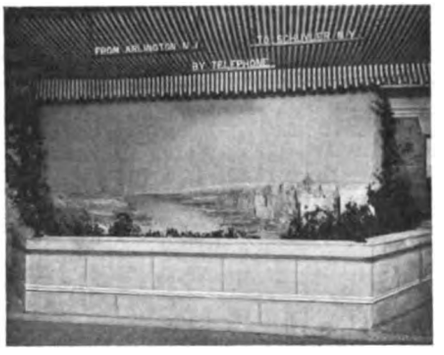
During the month there were approximately 14,400,000 telephone calls, local and toll. Any one of these operators failing in a single instance to give prompt and satisfactory connection might have spoiled this perfect record. Full credit, therefore, belongs to each one individually, whether she was located in the largest city or in the smallest hamlet, whether she was working during the day or during the night. Each one has a right to be proud of her record.

Digitized by Google

Two Medals Awarded The New York Telephone Co.

At the International Exposition of Safety and Sanitation

Booth Representing Telephone Exchange at Arlington, N. J.



Panorama Representing the Hudson River and Scenery on Both Sides Lying Between Arlington and Schuyler.

Booth Representing Schuyler Exchange, Manhattan.

TWO medals were awarded the New York Telephone Company at the International Exposition of Safety and Sanitation, held at the Grand Central Palace, New York, December 11 to 20 inclusive.

The first award was a gold medal offered by The Travelers Insurance Company "to the American Employer who achieved the greatest success in protecting the lives and limbs of his employees." The medal was presented to Mr. U. N. Bethell, President, on behalf of the New York Telephone Company, by the American Museum of Safety at a banquet at the Waldorf-Astoria, December 12.

The second award was the Grand Prize of the Exposition. It was given on December 15 to the New York Telephone Company for its interesting and instructive exhibit at the Exposition and for its progress in welfare work for its employees.

Of interest was the disposal of two other prizes at the same time. One was the E. H. Harriman Memorial Medal for the American railroad most successful in protecting the lives and health of its employees, which went to the Southern Pacific Company, Mr. Julius Kruttschnitt, Chairman of the Board of Directors; the other was the Louis Livingston Seaman Medal for progress and achievement in the promotion of hygiene and the mitigation of occupational diseases, which was given to the United States Steel Corporation, Mr. James A. Farrell, President.

Booth Representing Operators' Rest Room.

EXHIBIT AT INTERNATIONAL EXPOSITION OF SAFETY AND SANITATION.

Display of the N. Y. Telephone Co., Photographed in Sections.

The exhibit of the New York Telephone Company was planned and built by employees of the company, the scenic effects, however, being arranged by Arthur Voegtlin, creator of the Hippodrome spectacles.

The exhibit showed two telephone switchboards in actual operation completing calls between distant exchanges. The switchboards were installed by the Switchboard Wiring Force. One end of the exhibit represented a section of the Arlington, N. J., exchange and the other end a section of the Schuyler Exchange in New York City. Between the two ends of the exhibit was a panorama representing the country lying between Arlington and the section of New York City in which Schuyler is located. By means of clever lighting effects, the buildings on the New Jersey shore and the sky-scrapers of New York were given an appearance of realism, and even the Hudson River lying between seemed to be in action. Operators were busily at work both in "Arlington" and "Schuyler" making connections for "subscribers," demonstrating how telephone calls pass out of one exchange, over toll lines, through cables, under the Hudson River and through Manhattan, to the other exchange.

A typical rest room for operators was shown in connection with the "Schuyler" exchange.

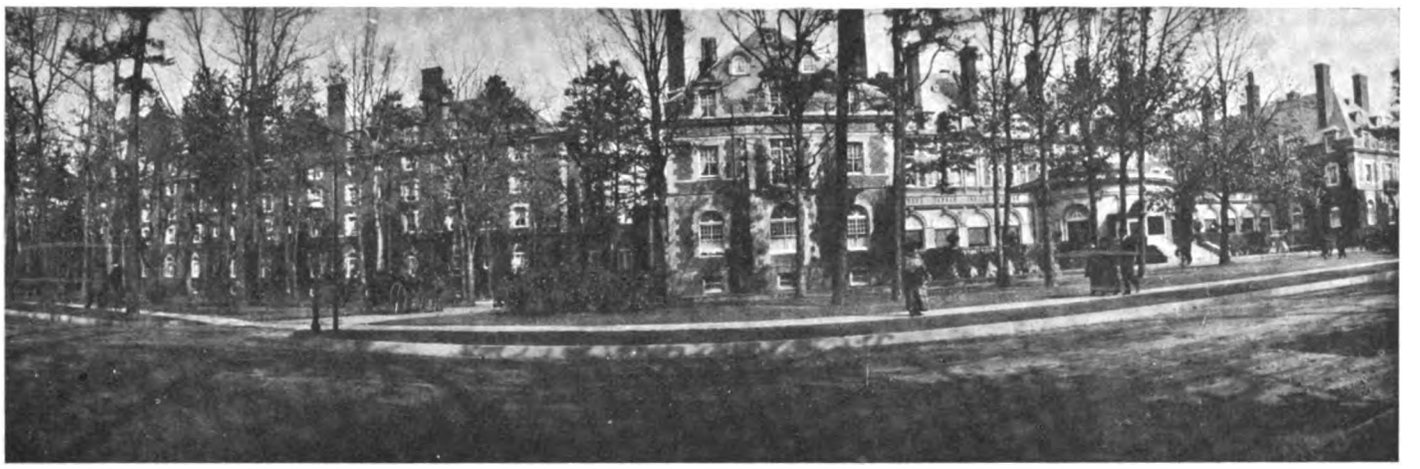
This exhibit created intense interest among the visitors to the Exposition, and the able manner in which Miss Manz, of the Operators' School, Manhattan, and her assistants, demonstrated the operation of the switchboards and the method of handling calls, added to its value and popularity.

In her talks Miss Manz brought out clearly how the public can assist in making the service perfect. Many expressions of approval were heard in the crowds which thronged the telephone exhibit.

Obverse of Medal Awarded the N. Y. Telephone Company.

Reverse of Medal for "Greatest Success" in Protecting Employees.

Digitized by Google



Laurel-in-the-Pines, Lakewood, N. J.—"Completely Telephoned."

The North Jersey Shore

Monmouth County District

J. A. WATERBURY
District Commercial Manager

W. C. APPLEGATE
General Foreman, Plant

B. T. TIGHE
District Traffic Manager

OFTEN known as the Shore District, the Monmouth County District covers that county and parts of Middlesex and Ocean counties, an area of over 1,000 square miles, or nearly one-third of the New Jersey Division. Within its borders are almost one hundred cities, boroughs, towns and hamlets, and the winter population is approximately 110,000, which increases to nearly 300,000 during the summer months, not including daily visitors, of whom there are said to be over a million a year.

Telephone service in this district is rendered mainly by the New York Telephone Company. There is also a connecting company known as the Farmers' Telephone Company.

In this territory the New York Telephone Company has five commercial offices, located at Asbury Park, West End, Long Branch, Red Bank and Lakewood, the last four named being Joint New York Telephone-Western Union Telegraph offices. There are seventeen exchanges, serving thirty-two central office districts. Five of these exchanges are common battery, serving twelve of the districts; twelve magneto offices serve the others.

Traffic and Plant Figures

The table below shows the increase in lines and stations in this district from 1909 to 1913, on September 1, the peak of the load each year:

September 1	*Lines*	*Stations*
1909	3,455	6,872
1910	3,820	7,432
1911	4,330	8,595
1912	4,874	10,127
1913	5,418	11,538

The following plant figures will give an idea of the equipment necessary to render service throughout this district:

Poles

Exchange	14,650
Trunk Line	11,000
Total	25,650

Miles of Pole Line

Exchange	356
Trunk	274
Total	630

Miles of Cable

Aerial	136
Underground	46
Block	20
Total	202

Many Industries

The popular conception of this district is that it is almost exclusively a resort section. A tour through the territory, however, will convince the visitor that it has a large permanent population and many industries.

Asbury Park and Vicinity

The fame of Asbury Park as a summer resort is universal. With its ideal location on the Atlantic seaboard, swept by ocean breezes, it is a popular place with the vacationist. In the town and vicinity are over 500 hotels and boarding houses, many being open all the year. Among the principal hotels are the New Monterey, which is the largest and has 350 rooms, with a Bell telephone in each; the Lafayette, the Metropolitan and the Coleman, the last two being open the entire year. With every room in boarding houses and hotels taken during the busy season, it is obvious that the telephone development and equipment must be complete, as guests absolutely depend upon it to keep in touch not only with local places, but also with their homes and business in nearby and distant cities. The spacious boardwalk, two miles in length, is a popular feature of Asbury Park, and during the summer it is crowded with pleasure seekers. All along the walk the familiar Blue Bell sign may be seen, calling attention to booths containing local and long distance telephones. In order to assist the public further in locating these stations, signs are placed at intervals telling all the places along the beach where public telephones are available.

In the spring of 1882 the first telephone exchange in Asbury Park was opened, with 55 subscribers. To-day the Asbury Park exchange has nearly 3,000 subscribers.

Farming and Other Industries

In Asbury Park and vicinity are a number of manufacturing industries, among them large garment mills, lumber mills and an automobile plant. The city boasts what is claimed to be the largest resort department store in the world, which covers a city block.

Although on the seacoast, one has to go but little more than a mile west to find extensive truck farms, which supply fresh vegetables, dairy products, etc., to the hotels and residents. Largely dependent upon the telephone to find a ready market, this section is well developed, and the pole lines running to these farms are so numerous that they cover an area of many

Digitized by Google

square miles, and on the Plant Department's map resemble a veritable spider's web.

Further inland we find still larger farms, raising produce for the markets in our big cities. While thousands of people are enjoying vacations at the seashore, the farmer is busiest.

So the industries in this region are not dependent upon the seacoast and its resort features, but are self-sustaining; as their products are sold anywhere the best prices can be obtained, and the telephone discovers these markets.

Metropolis of the North Jersey Coast

The city of Asbury Park is the center of what may be termed the metropolitan area of the north Jersey coast, when considered with its surrounding communities. Among these neighboring communities are Ocean Grove, with its famous camp meeting ground; Bradley Beach, Deal, and Allenhurst, all noted resort sections. Ocean Grove is also a Mecca for musicians and music lovers. During the summer season music festivals, oratorios and concerts are given. Well-known musical attractions, including the United States Marine Band, are heard in the spacious auditorium.

The excellent railroad facilities are responsible to a large extent for the growth and development of Asbury Park and environs, the Pennsylvania and the Central Railroad of New Jersey operating jointly over the tracks of the New York & Long Branch Railroad. Asbury Park not only receives more freight than any other Jersey coast city, but actually receives about 50 per cent. of the freight shipped over the New York & Long Branch Railroad.

Belmar, Spring Lake and Sea Girt

To the south of Asbury Park are Belmar and Spring Lake. In the latter is the New Monmouth Hotel, one of the best known hostelries along the coast, in which a 300-station private branch exchange was installed in the spring of 1913. Besides the resort features, there are many beautiful residences here, with their spacious lawns and shrubbery, maintained by prominent people from all over the country.

Further south is Sea Girt, the summer Capital of New Jersey, with its Little White House and State Camp, where expert marksmen assemble annually from all over the United States. Near Sea Girt are Manasquan, Point Pleasant and Bay Head, all noted for their boating and fishing. Bay Head is especially famed for its yachting, due to its situation at the head of Barnegat Bay.

The Peninsula

A peculiar land formation is the long, narrow peninsula extending 20 miles south from Point Pleasant. All along the coast are many fisheries, and at Seaside Park is a Bell telephone exchange, whose principal business is the handling of calls between the fisheries and markets. Without the telephone, the fisherman would find himself at a loss how to dispose of his catches, and consequently his business is almost entirely dependent upon it. On this peninsula are seven United States life-saving stations, all connected by a Government telephone line which extends from Sandy Hook to Cape May. This strip of land is also a well-developed resort, many Pennsylvania people, among others, making their summer homes here.

Long Branch District

Going north from Asbury Park, we enter the Long Branch district. Long Branch is not only a great summer resort, but a modern, prosperous and growing American city, run by the commission form of government. It has a permanent population of 15,000, and assessed property values exceeding $15,000,000. West End and Elberon are two of the sections of the city, and within their borders are the summer homes of many of the leading business men in the country. Elberon is famous as containing the summer residence of the late President Garfield, and after being shot in Washington in 1883, he was brought here, dying in his cottage, which is now connected with the Elberon Hotel and known as the Garfield Cottage. There were few telephones available at that time, and 100 Western Union Telegraph operators were hastily summoned to spread over the world the news regarding the stricken and martyred President. Martin Durivan, who was at that time a telegraph operator at Elberon and is now Morse operator in charge of the West End Joint New York Telephone-Western Union Telegraph office, estimates that no less than 2,000,000 words of press were sent from here by telegraph.

It is interesting to imagine how the news of such an event as President Garfield's assassination would now be handled, in these days of the long-distance telephone and its co-operation with the telegraph.

President Grant also spent many summers in West End, both during his terms of office and afterward.

The first telephone office in Long Branch was opened in 1882 in the West End section. The business has grown steadily, and the city now has about 1,800 telephones.

In the summer West End is known as Little Wall Street, many brokers' offices, which of necessity demand the highest class of telephone and telegraph service, being located here.

A historical event at Long Branch was the stranding of the steamer St. Paul, on January 26, 1896, when telephone connection was established between the liner and the Long Branch exchange.

North of Long Branch lies Monmouth Beach, another popular summer resort, and still further north is Seabright, which is a flourishing town during the summer and attracts many visitors. The latter is also noted for its fishing industry.

The Highlands

Most of the North Jersey shore is composed of lowlands, but a few miles north of Seabright are The Highlands of Navesink, where the famous Twin Lights are located at an elevation of about 300 feet above sea level, the great light in the north tower, the only one of the two now in operation, sending its glare many miles. From this lofty hill a magnificent view may be had for many miles. Just below is Sandy Hook, the long, hook-like peninsula well known as a land mark to vessels entering New York harbor, and on which is the Fort Hancock reservation. Looming up above the Highlands is Atlantic Highlands, said to be the highest point on the Atlantic coast.

Red Bank, Keyport and Keansburg

Northwest of Long Branch, on the Shrewsbury River, is Red Bank, a great commuting center. It is in the heart of a great farming section, and has little manufacturing, except a large garment mill.

The telephone business began in Red Bank in 1883, the Red Bank *Register* being the first subscriber. In 1889 the office was closed for a time and subscribers were served from the Long Branch office. To-day there are only a very few towns in the country with a higher telephone development.

Keansburg, still another of the popular resorts in this district, lies northwest of Red Bank. A few months ago a new telephone exchange was opened here, and its telephone development has been rapid during the past year.

On the shores of Raritan Bay lies the town of Keyport, a great oyster shipping center. It is also an important shipping point for farm produce, and the brick industry flourishes there. Matawan, not far from Keyport, has as its chief industry the canning of

Digitized by Google

Mollie Pitcher's Well on Road Between Freehold and Englishtown.

asparagus. In these towns, as in fact everywhere else in the district, we find the telephone responsible to a large extent both for their residential and business development.

Historical Freehold

Rich in history is the quaint old town of Freehold, the county seat of Monmouth County, twelve miles south of Matawan and fifteen miles from the coast. It is 195 feet above sea level and has a population of about 5,000. Here may be seen the Monmouth Battle Monument, unveiled in 1884 in commemoration of one of the hardest fought battles of the Revolution. Suitably marked is the spot where Washington met Lee retreating from the British, on June 28, 1778, and in the distance is the historic battlefield. Close at hand is the site of Mollie Pitcher's well. Another Colonial landmark is the old Tennent Church, which was used as a hospital during the Battle of Monmouth.

A Great Farm Center

Monmouth County is generally acknowledged as the second in the United States in farm productiveness, and Freehold, as the county seat, is in the very heart of all its riches. Anything that will grow in the temperate zone will grow on its farms. Freehold is situated midway between the three great markets of this section—New York, Philadelphia and the sea coast resorts, which, with the aid of the telephone, assure ready sales and quick returns. Here is located the general office of the Monmouth County Farmers' Exchange. The story of this organization and the work it accomplishes in enabling the farmer to get the best prices and protect his crops from adverse weather conditions, by means of the telephone, has been told in previous issues of THE TELEPHONE REVIEW. Potatoes are the chief crop in this region, and it is said that 440 bushels have been grown to the acre. The corn fields are also very extensive.

Through this territory run many rural telephone lines, and the wires are kept busy, especially during harvesting and marketing. The well-kept appearance of the farms, with the inevitable telephone line running into the farm houses, suggests thrift and prosperity.

Among the principal towns in this farming section are Holmdel, Middletown, Englishtown and Farmingdale.

Lakewood

With the closing of the summer season in the shore sections of this district, Lakewood comes into prominence. It is located well in the interior, fifteen miles south of Freehold and sixty miles from New York. The pure, crisp air and beauty of the natural surroundings are a great magnet, and the "City in the Pines" is considered the gem of fall resorts.

The New York Telephone Company recently opened a new commercial office in Lakewood. The telephone business is growing steadily, and the opening of the fall season shows an increase over previous years.

Hotel Telephone Equipment

The ease with which Lakewood may be reached from big cities, such as New York and Philadelphia, makes it a great social center, and its hotels are usually well filled during the greater part of the season.

A modern hotel is almost a city in itself. Years ago hotels in small resort sections, as well as almost anywhere else outside of the city, were looked upon merely as places to obtain board and comfortable lodging, and all modern conveniences were not expected. Time and progress have brought many changes, however, and these hostelries have become places in which all the latest conveniences, including complete telephone service, are demanded.

No modern hotel would now attempt to cater to its guests without telephone service, and the advertisement "A Telephone in Every Room" is a familiar one. The New York Telephone Company has recently installed a new and complete Bell telephone system in the Laurel-in-the-Pines, Lakewood, with service extending to all parts of the premises and a telephone in every room. Finished in white enamel, the switchboard and booths harmonize with the finish of the hotel office and are an artistic addition to its furnishings. A similar equipment was placed in the Laurel House, another leading hotel in Lakewood, on October 1, 1912.

Lakewood has several other fine hotels and many beautiful residences, among them the large estate of John D. Rockefeller and Georgian Court, George J. Gould's home.

The Busy Plant Department

In a district as large in area as the Monmouth County District, with its many miles of pole line, the plant man has considerable work on his hands, due in large measure to the severe electrical storms which sweep over the territory. A heavy one took place on the morning of August 30, and put out of commission 152 lines, 409 stations, and about 100 trunks. The fact that on September 2, all but 13 lines, 59 stations, and 7 trunks were again in service speaks well for the efficiency of the Plant Department.

Where the N. Y.-Washington Pole Line Crosses the Highway Near Freehold, N. J.

From January 1 to October 1, 1913, the Plant Department handled 6,000 contract orders, June being the heaviest month with 947.

Traffic Features

In August, 1913, the Monmouth County central offices completed approximately 1,170,000 calls; about 70,000 calls were passed between New York and these exchanges.

To train additional help for each season, operators' schools are maintained in the Asbury Park and Red Bank central office buildings. About July 1 operators are sent from the northern part of the Division to assist in handling the Fourth of July rush which is characteristic of the shore.

Digitized by Google

Wendover Avenue, West from Third Avenue, Twenty Years Ago.—May Walk—Sunday Schools of the North Side on the Way to the Park.—(*Courtesy of Mr. G. E. Stonebridge.*)

Wendover Avenue as it is today.

Bathgate Avenue Twenty Years Ago.
Courtesy of Mr. G. E. Stonebridge.

Bathgate Avenue between Tremont Avenue and 178th Street, as it is today.

Tremont Local Commercial Office

By P. E. Mahony, Local Commercial Manager

FIFTY years ago, Tremont was made up almost entirely of farms. Up to the year 1849 it could not even boast of a Post Office, the nearest being at West Farms, which is in that section of The Bronx immediately west of the Bronx River. Witness the improvement in the means of communication in Tremont since 1849. To-day there is a large Post Office on Washington Avenue near Tremont Avenue, a Telephone and Telegraph Office on Tremont Avenue, and a large Telephone Exchange on Webster Avenue and 178th Street to which are connected 11,000 stations. Another Exchange will be opened in Tremont early in 1914 to care for the rapid growth of the telephone business in this section.

Melrose in 1848

The present population of 200,000 inhabitants in Tremont is the outgrowth of a meeting held in 1848 by a small body of men who met at Military Hall on the Bowery in what is now the Borough of Manhattan, and discussed the feasibility of seeking some place near the City where they could establish their own homes. A committee was appointed who decided upon that section of the Bronx which is now known as Melrose. They gave it the name of New Village, which was later changed to Morrisania in honor of the Morris family whose farm they purchased.

It might be interesting to know that after these men established their homes, they traveled to and from the City via the Harlem River Railroad to 32nd Street, at which point the engine was detached and horses substituted. They were then taken to the station of the Harlem River Railroad which was located on Tyron Row, the site of the present Municipal Building.

Growth from 1870-1910

That section of the Bronx, west of the Bronx River, prior to 1874 was

Digitized by Google

Tremont Local Commercial Office,
453 West Tremont Ave.

part of Westchester County, and in that year it was annexed to the City of New York with a population of 33,000 inhabitants. Twenty-one years later, the City reached out and separated that part of The Bronx located east of the Bronx River from Westchester County.

Prior to the time that the Greater New York Charter went into effect, 1895, the entire Bronx consisted of 50 sparsely settled towns, which have since been merged into a great unified community, with a population of over a half million. The rapid growth of Paris, London, Berlin and other large cities, cannot be compared with that of The Bronx, which would be the seventh city in the United States if a separate and distinct city in itself.

The growth and development in The Bronx have been marvelled at, and the following figures taken from the United States Census Report speak for themselves.

1870, 37,393; 1880, 51,980; 1890, 88,908; 1910, 430,980.

It is estimated that there are now almost 600,000 inhabitants in the Borough. The present population of The Bronx is as large as the combined populations of San Francisco and Denver; Washington and Syracuse; Pittsburg and Nashville, and it is growing faster than any city in the United States.

Building Operations

During the first four months of 1911 the plans filed for new buildings in The Bronx aggregated $5,000,000, whereas during the corresponding part of 1912 the amount was $12,500,000. This figure exceeds the building operations for the entire year of 1911 of such hustling cities as Pittsburg, Milwaukee, Buffalo, Newark, Baltimore, Rochester and others, and stamps The Bronx as the busiest community from a building standpoint in the United States.

The Bronx boasts of one of the finest park systems in the country, Van Cortlandt, Bronx and Pelham being among the largest. The Bronx school system comprises a total of over fifty public schools and two high schools, as well as the New York and Fordham Universities.

Transportation Facilities

With the building of the Subway the future of the Borough of The Bronx was made possible. The dual plan of the new Rapid Transit Railways in the City of New York provides for an elevated extension of the present Subway system from West Farms along White Plains Road, through Williamsbridge and Wakefield, and an extension from the Third Avenue Elevated Railroad from Fordham to Gun Hill Road and White Plains Road, which leaves no doubt

Messengers, Tremont Joint Office.

regarding the future of the Williamsbridge and Wakefield sections, with large opportunities for development. This, together with the new Lexington Avenue Subway, which is now in course of construction, insures a million population in The Bronx in 1920, and an enormous increase in building operations.

Tremont Office Opened

Prior to June, 1913, the Commercial business of the New York Telephone Company in the Borough of The Bronx was handled by the office located at 366 East 150th Street. The telephone business of The Bronx, under the direction of J. Brackenridge, District Commercial Manager, had grown to such an extent that larger quarters would be necessary, and for the convenience of the patrons of the Tremont, Williamsbridge, Kingsbridge, Woodlawn and Marble Districts, it was decided to open an office in Tremont. The well-appointed office, now located in the Crotona Thea-

Interior from the Front of Tremont Local Commercial Office.

Interior from the Rear of Tremont Local Commercial Office.

Digitized by Google

tre Building, at 453 East Tremont Avenue, was opened on June 2. This was accomplished through the untiring efforts of the Building Department of the Company, who turned over a Commercial office on that date, which seemed an impossibility three or four days before. Exceptional credit is also due all of the employees of the Tremont Commercial office for the efficient manner in which they subdivided records in the Melrose office on Saturday, May 31, and started to work on Monday June 2, as though the office had always been open. All of the employees transferred to the Tremont office were formerly employed in other offices of the Company and are prepared to handle all Commercial business with the maximum of efficiency.

Telephone Growth

At the time the Tremont office was opened the Bronx District was subdivided into two separate local districts, the Melrose office consisting of the Melrose, Westchester and City Island Exchange Districts, in charge of J. W. Jones, as Local Commercial Manager, and the Tremont office consisting of the Tremont, Kingsbridge, Williamsbridge, Woodlawn and Marble Exchange Districts, in charge of P. E. Mahony, Local Commercial Manager, both reporting to J. Brackenridge, District Commercial Manager.

On August 1, 1913, the Western Union Telegraph office, formerly located at the Tremont Railway station of the New York Central Railroad, was removed to this office, and with a force of three telegraph operators and six messengers on duty day and night from 7:30 to 1 A. M. every day, including Sundays, we are prepared to handle all business with the utmost speed.

The following table gives some idea of the growth in stations in the Tremont District during the past seven years.

	Jan. 1 1906	Jan. 1 1910	Jan. 1 1911	Jan. 1 1912	Jan. 1 1913
Tremont	1,998	4,200	5,542	7,233	8,966
Williamsbridge and Woodlawn	279	535	629	766	919
Kingsbridge and Marble	270	417	492	591	684
	2,547	5,152	6,663	8,590	10,569

The station estimate for the Tremont District for the months of June, July, August and September, the first four months the office was open, was 621. The actual net gain in stations contracted for during these months was 924.

Cable Work On Long Island

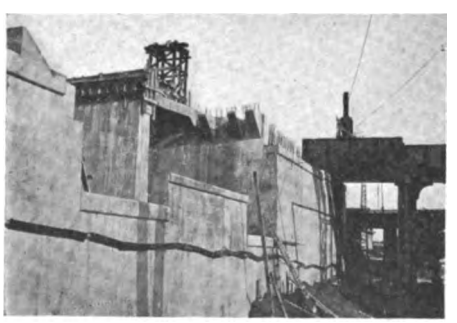
A Much Abused Cable

THE accompanying illustration, No. 1, shows a 600 pair underground cable and ducts lifted and fastened temporarily to a concrete abutment erected to support steel girders which eliminate the grade crossing at Rockaway Road and the Long Island Railroad tracks at Jamaica, L. I.

When men began to dig at this crossing, the cable was in a creosoted wooden duct and was sawed in two (putting 300 subscribers out of service) by a man who afterwards told us he thought he was sawing a beam. The cable was damaged several times with picks and crowbars before it could be taken care of.

After the Railroad Company had removed the surface tracks and built a temporary elevated structure, the cable was dug up, 35 feet of 600 pair additional cable spliced in on the section to make it long enough to move around, temporary supports were erected and the cable was raised ten feet above ground until the concrete abutments were finished, when it was attached to them as shown in the picture.

This condition existed for one and one-half years, when a new subway and cable were placed underground necessitating the making of a 600 pair section throw through an old splice on non-coded cable. By the use of a flexible rubber test cleat the throwing of the wires was accomplished in four days.



600-Pair Underground Cable and Ducts on concrete abutment, Rockaway Road and L. I. R. R. tracks, Jamaica, L. I.

Cables Giving Good Service

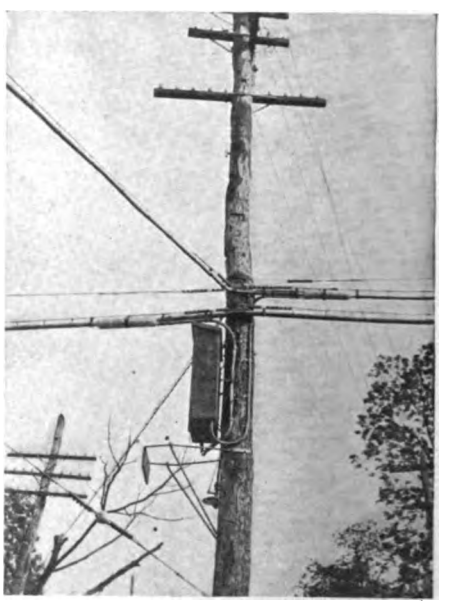
IN the accompanying illustration, No. 2, are shown duplex toll cables carrying loaded 19, 16 and 13 gauge wire. The box is used for cross connecting the North Shore, Long Island, trunks and is located on the corner of East Norwich Turnpike and Glen Cove Avenue, Bulls Head, L. I.

The lower cable, with the exception of about 1,000 feet, is run on poles for 26 miles along the North Hempstead and East Norwich Turnpikes from Flushing to Huntington. Telephone men contemplating an automobile trip on Long Island will find the route of this cable an excellent road, a very interesting trip and a beautiful exposition of good joint pole line construction.

The upper cable is 19 gauge and runs from Roslyn to Glen Cove, diverging at the corner shown along Glen Cove Avenue for about four miles.

These cables have been in service from eighteen months to three years and are in as good condition now as the day they were put in service. In some cases they displaced six arms of open wire and have exceeded expectations for reliability of service, and at no time since their installation has there been any serious interruption of service due to cable trouble.

A DEMUTH, Chief Foreman,
Long Island Division.



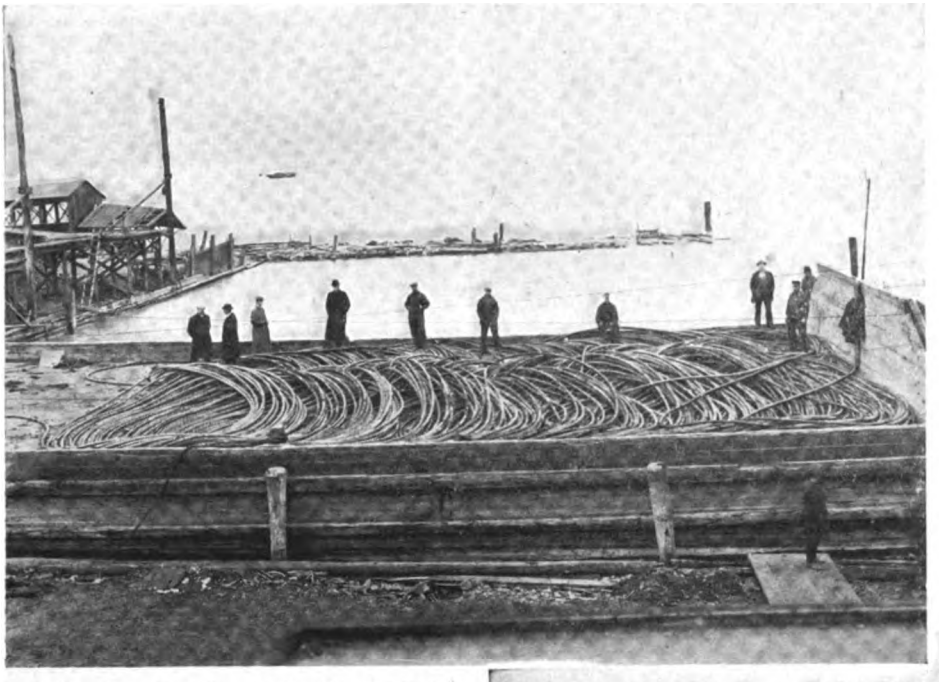
Long Island Large Gauge Duplex Toll Cables.—Glen Cove Road and East Norwich Turnpike.

Digitized by Google

Interesting Facts About Laying a Submarine

New Cable Between Tarrytown and Nyack

By Robert F. Swayze, Plant Department, Manhattan



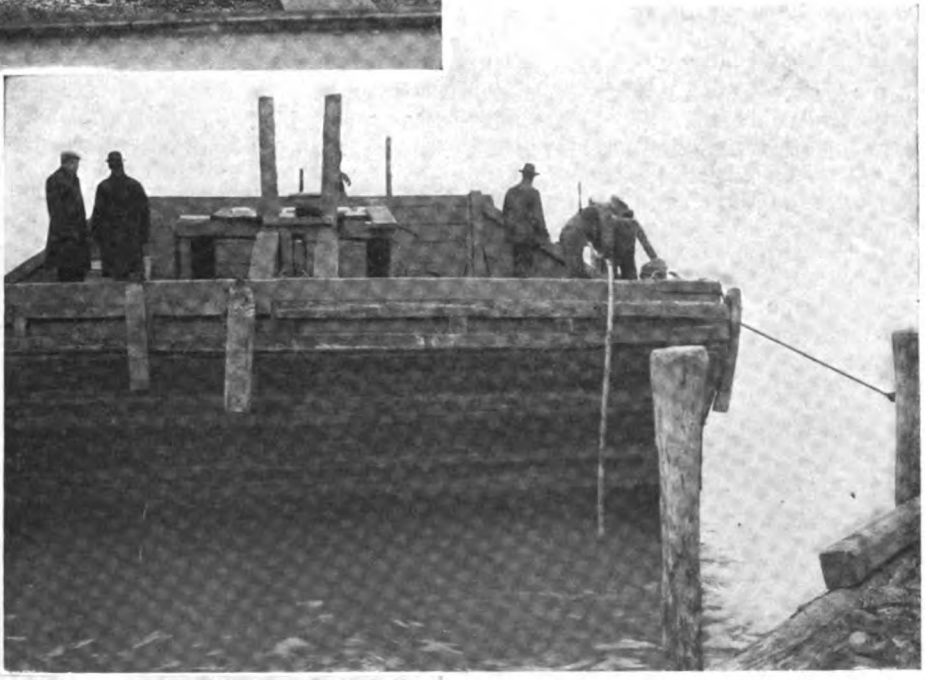
Cable Boat Leaving Main Street Dock, Tarrytown. Showing Cable Coiled in Figure 8 on Deck.

A 30-PAIR submarine cable, 16,000 feet long, was laid between Nyack and Tarrytown on November 26. This is the longest submarine cable ever laid by the Company. As such jobs do not occur very often even where there is water, and in other parts of the territory a submarine cable would be about as useful and is as rare as a ferryboat in the Desert of Sahara, the occurrence mentioned is worthy of description, more especially as there were several features connected with it that are unusual.

In the majority of cases the steamer *Western Union*, a boat built for the purpose of handling submarine cables, is used for laying cables in the New York harbor, but on account of the length of the cable required between Tarrytown and Nyack and also the shallow condition of the water on both sides of the river at this crossing, the *Western Union* could not be used. So it was planned to hire an ordinary flat-decked scow, approximately 125 feet long by 35 feet beam, which drew only about 18 inches of water when she was unloaded.

The water drawn by the scow after placing the cable on board was less than two feet, so the advantage of a boat of this kind for laying cable in shallow water is apparent.

As the scow had no means of propelling itself, a light-draught tug, drawing a little less than six feet of water, was used to tow it up the river to Tarrytown and across to Nyack for laying the cable.



Laying the Cable Close to Main Street Dock, Tarrytown, from One Side of the Scow.

Cable Boat, a Few Hundred Feet Out from Main Street, Tarrytown. Men Placing Cable in Brake.

In laying cable from a boat of this kind special attention must be given to two facts: first, the cable should be placed on the deck in such a shape that it will clear itself as it is fed out into the river, and not become entangled, for otherwise the cable would kink as it became taut, thereby break-

Digitized by Google

Approaching Nyack Shore. Showing type of scow from which cable was laid.

ing the insulation in the cable and causing the wires to become crossed, which would make the cable unfit for service. It would be impossible to stop the boat suddenly if anything should happen. In the second place, there should be provided a strong brake on the stern of the scow to prevent the cable running overboard on account of its weight when laid in deep water. Several instances have occurred where a cable being laid from a scow of this kind has run overboard and coiled itself in one spot at the bottom of the river. Such a thing happened in laying one of the first cables across the Atlantic; the boat from which the cable was being laid was not provided with a brake sufficiently strong and every foot of cable on board ran off and sank to the bottom of the ocean.

I went up to Tarrytown and Nyack on the 25th to look over the situation and locate where we could best lay the cable and fasten it on each side of the river.

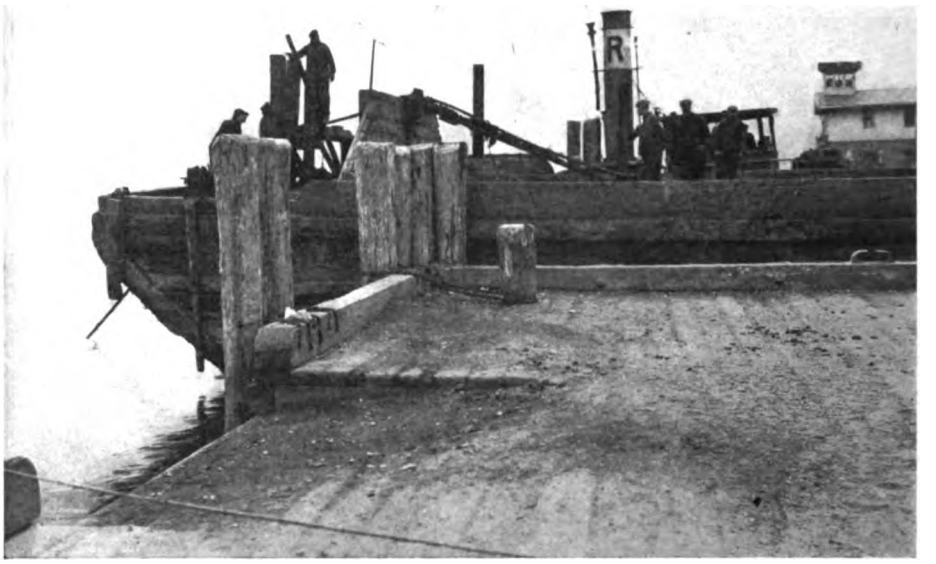
The tug having the scow with the cable on board in tow reached Tarrytown on the night of the 25th and lay all night at the dock at the foot of Main Street. The men to handle the cable left New York about 6 o'clock on the morning of the 26th, reaching Tarrytown about 7, and the work proceeded immediately.

An end of the cable was taken from the scow and pulled about 100 feet on land to a pole to which it was securely chained. Then orders were given to start ahead across the river. It would have been desirable to remove the bulkhead from the stern of the scow to facilitate laying the cable, but the owner of the scow objected.

The tide was high slack and little difficulty was experienced in getting away from the dock and headed across the river. The start was made at 8 o'clock and we finished in one hour and fifteen minutes. The coils fed themselves with practically no attention, owing to the precaution of making them in the shape of the figure 8. The landing at Nyack was at the foot of Main Street. At this point approximately 200 feet of cable was removed from the scow and coiled on the bank near the dock to be extended in the future to meet a subway to be built down Main Street.

The tug then returned to Tarrytown and the cable end at that point was unchained in order to allow a little slack in the river on that side, as in laying a cable the end from which it is laid is always drawn very taut.

The cable was tested after being laid and found to be in good condition and ready for use.



Alongside Main Street Dock, Nyack. Showing cable leading through brake on stern of scow.

Won by Economy

A Scotchman, wishing to know his fate at once, telegraphed a proposal of marriage to the lady of his choice. After passing the entire day at the telegraph office he was finally rewarded late in the evening by an affirmative answer.

"If I were you," suggested the operator, when he delivered the message, "I'd think twice before I'd marry a girl that kept me waiting all day for my answer."

"Na, na," retorted the Scot. "The lass who waits for the night rates is the lass for me."—New York *Globe*.

Deadly Foes

"Bella and Ermentrude don't seem to be on friendly terms." "Friendly! Why, those two girls are so mad at each other it makes them furious to think that they have to use the same telephone system."—*Birmingham Age-Herald.*

Telephone for Hens

Waynesboro man has installed a telephone system in his barnyard, by which his hens call up the kitchen when they lay an egg, and furnish information of the fact. After a while, no doubt, spring pullets will be calling up the cooks and notifying them when they are fat enough to eat.—Rome *Tribune-Herald.*

Young and Green

Mrs. Youngbride (telephoning to butcher)—I want some meat, please.

Butcher—Yes'm. How much will you have?

Mrs. Youngbride—O—er—how much have you got?—*Exchange.*

Digitized by Google

An Unusual Cable Trouble

By A. H. Keteltas, Wire Chief, Broad

Showing Make-up of Cable Armor; also how badly cable was twisted.

The center of this picture shows where the two layers of cable were twisted together until their combined diameter was not as great as the original.

Another view showing conditions similar to the last one.

A VERY peculiar and unusual accident occurred on October 30, when the Hamburg-American Line Tug No. 3 fouled the United States Government submarine telephone cable extending from the new Barge Office at the Battery to Ellis Island.

The cable is made up of thirty-eight stranded conductors, each equivalent approximately to No. 14 B. & S. gauge. Each conductor is especially insulated and is absolutely waterproof. The armor consists of thirty-three steel wires, three-eighths inches in diameter, wound spirally around the cable, the completed cable being four inches in diameter.

At 3:45 P. M., on October 30, all lines extending from the Broad Central Office to the Private Branch Exchange on Ellis Island were reported "out of order," and upon test they were all found to be "grounded both sides." At 4:00 P. M. all lines tested "clear and open" towards the Island, the capacity test indicating that the trouble was on or near Ellis Island, and this, together with the facts that the grounds had disappeared and the lines tested "clear and open," led to the assumption that the trouble was on the Island. When the Inspector reached the Island he found, however, that all conductors in the cable tested "grounded and short circuited toward New York."

With these conditions existing, we had a decidedly peculiar cable trouble, especially so as the cable involved was a "submarine," the trouble locating under the Bay, all conductors from one end testing "clear and open" and all conductors from the other end testing "ground and short circuit."

Taking into consideration the size and weight of the cable, it is evident that an enormous power must have been exerted in order to twist it up in the condition shown in the illustration. There were fifteen complete turns of cable about itself, and in one place the two thicknesses of cable were twisted so tightly together that their combined diameter was less than that of the original cable.

The "clear and open" test from New York was due to the tremendous pressure which broke the wires and embedded the ends in the insulation so completely as to exclude all moisture, while the "ground and short circuit" test from the Island was due to a cut in the cable between the twisted portion and the Island.

Section of Submarine Cable. The end in foreground shows where tug's propeller twisted it until it broke in two. The two ends at top are where cable was cut to make splice.

The Hamburg-American Line Tug No. 3 is the most powerful tug in the harbor and was built especially to warp the Steamship Imperator into and out of her pier. She was so badly damaged as the result of this encounter that she was unable to proceed under her own power and had to be towed away.

The cable repairs were made under the direction of the U. S. Government officials.

Prompt Restoration of Telephone Service

AT 9 A. M. on November 15, fire started in the hay and grain buildings occupied by Levy Brothers, subscribers to Stagg 2740-1, and four alarms were necessary before it was under control.

At 10 A. M. a telephone salesman succeeded in getting through the fire lines to interview Mr. S. Levy and asked him if he did not wish temporary service at some other location. He quickly took advantage of the suggestion and at 11:30 A. M. had secured quarters with another hay merchant.

Orders were given immediately for the transferring of all Levy Brothers' calls until their own service could be installed. The Plant men were on the job at 11:45 A. M., and at 1 o'clock the work was completed.

Levy Brothers expressed their gratification for our prompt attention, and said that the Telephone Company had certainly proven a good friend in time of need. A. E. Doner, Agent,
Williamsburg Commercial.

Digitized by Google

The Telephone Society of New York

Main Society

THE subject of "Making the Service Popular" was presented in five papers read at the 147th meeting of the Telephone Society of New York on November 28. The papers were as follows:

"The Commercial Department," by G. G. Volkmar, District Commercial Manager, New York Telephone Company; "The Plant Department," by J. F. Naylon, District Plant Superintendent, New York Telephone Company; "The Traffic Department," by J. L. Turner, of the Traffic Rules Committee, New York Telephone Company; "The Western Union Telegraph Company," by Preston D. Callum, District Commercial Manager, Western Union Telegraph Company; "The Advertising Department," by H. G Stokes, Supervisor of Advertising Copy, New York Telephone Company.

The veritable existence of a public service corporation absolutely depends upon the popularity of its service with the public. As a public utility, the telephone, because of its universal use, its wonderful possibilities, and its great convenience, should and does reach the highest pinnacle in the popular esteem of the millions it serves. Those in the great organization which provides Bell telephone service know what they are striving to accomplish, both as individuals and as one solid unit, and their success in rendering the best telephone service in the world is the strongest indication that their efforts are not in vain.

It is unnecessary to point out just how our service excels; simply a comparison which any one can make with that rendered abroad is the strongest proof of its superiority. People are always willing to pay the price a commodity is actually worth, and to make our telephone service popular they must be given full value for their money.

To give value received, every employee must always remember that in any dealings with the public he represents the company. The commercial employee who sells the service, the plant employee who installs and maintains it, and the traffic employee who renders it, each must convince the customer that they have the interests of the public at heart and are ready and willing to serve it at all times.

By co-operation along these lines with one another and with the public the Bell System as typified by the New York Telephone Company has not only made its service popular, but is making it more and more so.

Making the service popular, means, in the words of Mr. Turner, making it "such that our patrons will feel that it is a *real pleasure* to use it." This he illustrated by the following equation:

"The Company's methods and Rules *plus* the Personal Touch given by the Employee *equal* the Company's service."

At the conclusion of the five papers, Mr. W. L. Whittlesey, of the Accounting Department, was called upon and spoke of how this department assists in making the telephone popular. He was followed by several volunteer speakers from the floor. These were Mr. Eldred of the Treasurer's office; Mr. H. C. Carpenter, Engineer, and Mr. Oldaker of the Commercial Department, N. Y. Telephone Company, and Mr. Simon of the Western Union.

The subject, "Making the Service Popular," was one which was of equal interest to all employees, and therefore an invitation had been extended to the ladies to be present. Several hundred occupied the gallery.

The Blue Bell Orchestra played several selections before the meeting was called to order, and received hearty applause.

On behalf of the Section, President Cox extended a vote of thanks to the Blue Bell Orchestra for their voluntary service in giving entertainment which does so much to make the meetings interesting.

The fast growing membership was further augmented by the admission of 229 applicants, making a total of 572 since the season opened, and bringing the membership of the Section to 3,231.

The meeting adjourned to the fifth floor where a reception, with music by the Blue Bell Orchestra and refreshments, was held.

December Meeting

The December meeting was held on the 16th. It consisted of an evening with the "movies," the principal film being "Spinners of Speech" produced by Pathe Freres for the company. Among the other films was "Chelsea 7750," an interesting photo drama based on the telephone. An elaborate program was rendered by the Blue Bell Orchestra. The large number present, including many ladies, made it necessary to hold an overflow meeting on the fifth floor.

Hudson Section

ON the evening of November 12 the Hudson Section opened the season of 1913-1914 under circumstances which forecast a most successful year.

When Mr. E. H. Powley opened his first meeting as Chairman of the Section, he was greeted by nearly 250 members. He outlined briefly the plans of the Papers and Meetings Committee which is arranging a series of papers for the Albany and District meetings that will reflect credit on its efforts and be highly instructive and entertaining to the society.

After the routine business, the Chairman introduced Mr. E. B. Craft, Development Engineer of the Western Electric Company, who read a paper illustrated by lantern slides on "The Engineering Laboratories of the Western Electric Company, their Problems and their Relation to the Telephone Business." The paper was brimful of interesting facts and revealed to many for the first time how the engineers handle the manifold details and exhaustive studies which underlie the development of telephone equipment and its accessories.

At the close of the paper remarks were made by Messrs. F. L. Arland, S. H. Brown, H. McIver, R. P. Bunyan, F. E. Dunphy, J. G. Dickenson, H. P. Miller, J. A. Jamison, E. A. McDonough and E. G. Anderson.

Central Section

THE Central Section had a novel meeting on November 25. It seemed wise to the Executive Committee of the Central Section to bring variety into the meetings. It is the same idea which seems to permeate the entire Society these days—to make the meetings lighter, to add to the social features even at some cost to their educational aspect.

The Section accepted the invitation of Dey Brothers & Company, the city's leading department store, to meet in Harmony Hall in that company's new building, and to enjoy there a musical program arranged by Mr. A. J. Speich, the head of the musical instrument department of the firm. Harmony Hall is an ideal place for gatherings the size of the Telephone Society's Section, and was built especially to provide the best acoustic properties for musical entertainments. The program of the evening included selections on the Manualo, song selections by Messrs. Harry LaVier, Jack Hamilton, Gene Kendrick, and Miss Leora

Digitized by Google

McChesney; the last named a striking contralto soloist whose numbers were especially appreciated by the audience because she was formerly a fellow employee; the program also carried mandolin and banjo numbers by Mr. E. F. Loomis.

The real novelty of the evening, and that which brought out practically all the Section's members from Syracuse and nearby places was the presentation of the telephone moving picture film, "Spinners of Speech." It was heartily enjoyed by all present.

In order to give to the operators and other female employees, who through no fault of their own are unable to be members of the Society, an opportunity to see the film, they were invited to the hall at 7:30 to listen to music and watch the "movies" until the time of the regular Section meeting at 8:15.

Utica District Chapter.

The first District Chapter meeting of the year was held at Utica in Genessee Hall on Friday evening, November 28. The ladies were invited and contributed an entertaining part of the program. Vocal numbers were furnished by Miss Wilkie, Miss Ringwald, Miss Knauer, of Utica, and Miss Connors of Rome. A piano solo was rendered by Miss Cox of Utica, also a violin solo by Miss Tyler of Utica accompanied by Miss Cox. Following the musical program the Pathé film, "Spinners of Speech," was shown.

Two papers were read—one, written by C. W. Hitchcock, District Manager, and read by R. J. Blake, entitled "Interest — A Business Necessity"; the other, "Contract Orders from a Plant Standpoint," read by Leo A. Pryne. They were well received and much enjoyed. Following the program the hall was cleared and an informal dance was held. The attendance was large, over 200 being present.

Western Section

THE seventeenth meeting of the Western Section was held on November 14 in the Telephone Building, Buffalo, with 300 members present.

The by-laws of the Section were changed so that the fiscal year will begin in October, as the Main Section year does. A resolution was adopted providing that Chairman V. C. Mott, Vice-Chairman Harry W. Gaul, Secretary-Treasurer Harrison Stewart, the Executive and other Committees, should hold office until an election in May or June, 1914. It was also decided to permit the payment of 50c for dues from January 1 to September 30, 1914, in order to transfer accounts to the new fiscal year.

Chairman Mott announced the membership as 461, and expressed the hope that the Western Section would make an effort to enroll a large number of new members before December 15 in order to include them in the year book, which will be issued on January 1.

The Chairman then introduced Mr. W. J. Hiss, General Manager of the Southwestern Telegraph & Telephone Company at St. Louis, and former Division General Manager, Western. Mr. Hiss was greeted with applause which lasted for several minutes. He addressed the Section on "Some Reminiscences" and told, among other things, of the pioneer work of the Bell System in the middle west and of his experiences in the New York Telephone Company. His remarks were thoroughly enjoyed by every member present.

Mr. Hiss was the only speaker of the evening, as the members of the Section wished to greet him on his first visit to Buffalo since his resignation as Division General Manager on November 1, 1912, and were given an opportunity to do so during an informal reception which lasted about an hour.

Out West

BIGGSVILLE and Kirkwood may not bring much of a picture to your mind when you read the names, but they are two towns in the State of Illinois.

We must confess that we were not familiar with them until a contributor sent us a copy of their telephone directory. The make-up of the directory is so different from those we have here in the East that a brief description of it will no doubt interest our readers.

It is called "Telephone Directory of Farmers' Lines," and is by no means a ponderous volume—in fact, it slips easily into the ordinary coat pocket, since it measures 4¾ inches wide by 8½ inches long, and consists of 15 pages. The pages overlap each other for the purpose of displaying the alphabetical index. The front cover contains the names of the owner, the Manager, Assistant Manager, the two operators at Biggsville and the two at Kirkwood; also the name of the Lineman. It states that on Sunday the office is open from 9 to 10 a. m., and 3 to 4 p. m.

The manner of calling would seem to be confusing upon first glance at the listings, but the "Rules and Suggestions" printed on the second page make it clear. For instance, the first name in the directory under Kirkwood reads: "52 on 15 Abbey, Horatio—Res." Now observe the method of calling as printed in the "Rules and Suggestions" above mentioned:

"Have the number of your party ready before calling 'Central.' Numbers should be read thus: 152 on 16 is read, 'one, five, two on sixteen;' 552 on 45 is called 'double five, two on forty-five;' 555 on 55 is 'double five, five on fifty-five.' The first number by a simple cipher code indicates to the operator the right ring and the second number is that of the line on which your party is found. Wherever 5 appears in the first number it calls for a long ring but the figures 1, 2, 3, 4, indicate how many short rings are given and at what place."

A plea for courtesy when using the telephone is embodied in the last paragraph of the "Rules and Suggestions":

"Operators have no desire to offend anyone wantonly. If you are jostled out of your turn, please say so as good naturedly as possible, remembering that there is an increasing demand for telephone service and often there is much to vex the operator."

A note printed on the back of the directory under the heading "Night Service," says:

"In the interest of fairness to the night operators, the patrons are kindly requested not to make any but important calls between the hours of 10 o'clock p. m. and 4.30 a. m. The operator is not expected to sit the entire night at the switchboard, but emergency calls and any others of special importance will be answered cheerfully any time."

We gain the impression that the telephone in the towns of Biggsville and Kirkwood is used as extensively as its plant will permit and it is evident from the above request for courtesy that as the town grows the demand for telephone service is increased, and thus the telephone and progress go hand in hand in the small as well as the larger towns.

Digitized by Google

Partial Summary of Outside Development Work, Planned or Under Way

Schenectady, N. Y.

$95,000 For Subway and New Underground and Aerial Cables.

EXTENSIVE additions have been made to the outside plant in Schenectady in the last two or three years, mention of which has been made in The Telephone Review, but in order to care for new business which is being secured in this city, further plant additions will be required in a very short time.

The plant of the Home Telephone Company was consolidated with this company's plant and the duplicate Home stations discontinued from service slightly over a year ago. During the year following the consolidation, the number of telephones has increased by nearly 1,200 to a total of about 8,750 telephones in service in the district, and the construction of new residences, especially in the Bellvue section in the western part of the city and the section adjacent to Van Vranken Avenue in the eastern part, is expected to bring a large further growth.

In order to provide relief for existing cables in which the facilities have been almost congested by the recent heavy growth, to care for the expected growth in the next few years, and to improve plant conditions where the growth has necessitated the placing of heavy runs of aerial wires, it has been planned under a recently approved estimate to construct about one mile of subway and place between thirteen and fourteen miles of underground and aerial cables.

This work will provide adequate cable facilities to care for a large growth throughout the developed portions of the city where cable construction is now warranted, and is estimated to cost about $95,000. An appropriation has been authorized by the Executive Committee to cover this work.

In connection with the new cable work it is proposed to remove all duplicate aerial telephone plants, and to combine where practicable with the Electric Light Company on one line of poles. This will mean the elimination of a large number of poles, aerial wires and cables throughout the city and will cause a very appreciable improvement in the appearance of the plant as well as a reduction of interruptions or troubles in the service.

Troy, N. Y.

Progress of New Telephone Building.

WORK on the new Telephone Building located at the corner of State and Fourth Streets, Troy, a description of which appeared in a recent number of The Telephone Review, is now well advanced, the basement and waterproofing have been completed and the brick work is well above grade level. This building is planned to accommodate two switchboards, for which plans have been perfected and an appropriation authorized, and the Western Electric Company will start the installation of the switchboards within a few months.

During the past month or two preliminary plans have been made for extensive outside plant work in Troy to effect the cut-over to the new building, and an estimate request for this work will be submitted to the Executive Committee within a short time.

Park Ridge, N. J.

$5,300 For Additional Plant.

THE Park Ridge central office was opened in the early part of 1911, less than three years ago, with a total of about sixty telephones in service.

The outside plant constructed just prior to the opening of this office included a considerable amount of cable in Park Ridge and the cable plant has since been extended.

The growth in this district has been very rapid, the number of telephones having been more than trebled since the establishment of the office, and further extensions of the cable plant are necessary to care for the new business which is expected in the next year or two. Under an appropriation of about $5,300, recently authorized by the Executive Committee, it is planned to construct pole lines and run about two miles of aerial cable in this district.

This work will provide plant facilities to care for a large growth in the district, especially in the Woodcliff Lake section, where the growth is expected to be very rapid.

Extensive Plant Additions in Districts Along the New Jersey Coast

$40,000 For New Construction.

WITHIN the past month or two plans have been prepared for a large amount of outside plant construction in various districts along the New Jersey coast from Monmouth Beach to Seaside Park.

The growth in telephones in this section is very heavy in the summer season, and during the past summer the new business required the placing of large numbers of aerial wires in sections not reached by the present cable plant, and in other sections the available cable facilities were almost exhausted to care for new subscriber stations.

The proposed work will include the placing of between twelve and thirteen miles of underground and aerial cables and will be started early in 1914 so that the new plant will be ready for service before the beginning of the next summer.

With the increased facilities the outside plant will contain sufficient spares to care promptly for the new business which is expected in these districts next summer, and the completion of the work will permit the removal of a number of aerial wires which will result in both an improvement in the appearance of the plant and a decrease in maintenance troubles or interruptions to the service.

The plans include cable construction in the following exchange districts: Monmouth Beach, Long Branch, Deal, Asbury Park, Belmar, Spring Lake, Point Pleasant and Sea Side Park. An appropriation of about $40,000 has been authorized by the Executive Committee to cover this work.

Cable Construction Planned for Lakewood, New Jersey

Fifty Per Cent. Increase in Telephones During Year.

AN appropriation has been recently authorized for additions to the underground and aerial cable plant in Lakewood.

There has been a very large increase in the number of telephones in this district in the past year or two, and the new work will provide facilities for caring for the new business which is expected in the near future.

There are at the time of writing slightly over one thousand telephones in service in this district, this number including an increase of over fifty per cent. during the past year.

North Tonawanda, N. Y.

$130,000 For Plant Additions.

THE last issue of The Telephone Review contained a description of the plant in Tonawanda and North

Digitized by Google

Tonawanda and the very extensive additions and improvements which will be made in the plant in the latter city during the next few months.

In the past month plans have been approved for placing underground cables in the new Oliver Street subway, and for constructing additional subway and underground cables in other parts of the city to provide an adequate feeder plant for the entire city. Provision has also been made for placing branch cables to care for local distribution on the streets tributary to the underground feeder routes, and a new appropriation of about $75,000 has been authorized to cover the additional subway and cable construction.

The proposed work will provide adequate facilities for properly developing the telephone service throughout all sections of the city where the building development warrants construction at this time. The completion of the cable work will permit the removal of a large number of aerial wires with which much trouble has been experienced due to the heavy tree growth, and a marked reduction will be made in the number of maintenance troubles and interruptions to the service.

The equipment of the central office located in North Tonawanda is now being increased to a total of 1,120 subscriber lines under an estimate carrying an appropriation of about $22,000, and the added equipment will provide this office with sufficient switchboard facilities to care for the expected growth in both Tonawanda and North Tonawanda for two or three years.

The total appropriations which have recently been authorized for plant additions in North Tonawanda amount to approximately $130,000.

Medina, N. Y.

$4,800 For Increasing Equipment of Common Battery Switchboard.

MENTION was made in The Telephone Review about a year ago of the extensive additions to the telephone plant in the Medina exchange district which were planned or under way.

The greater part of the work has now been completed, this work including the placing of about six miles of cable in Medina and a large amount of pole line and aerial wire construction in the West Shelby, East Shelby and Millville sections.

In addition to the outside plant construction, the equipment of the common battery switchboard in Medina is being increased under a recent appropriation of about $4,800.

The completion of the work now in hand will provide Medina with a complete and up-to-date telephone plant in every respect, with ample facilities for new business.

A substantial growth in telephones is now being secured in this district, and the net increase for the year 1913 will probably be much larger than was estimated at the first of the year. There are at present over 1,400 telephones in service from the Medina central office.

The World Uses 12,318,000 Telephones

By Garrett P. Serviss

IF some Voltaire of the planet Jupiter were made acquainted with the telephone statistics of the planet Earth, he might find therein material for the most biting sarcasm, which would greatly amuse his readers and yet be founded upon a complete misunderstanding.

"Look at that little, six-foot world down there," he would say, sneeringly; "it makes up in talk what it lacks in size. Its diminutive inhabitants, not content with the wagging tongues that nature has given them, have invented a speaking machine to increase and spread the deafening babblement in which they delight. There are 1,500,000,000 tongues on their planet, including those of the babies, but to these they have added 12,000,000 machines, which enormously multiply the talking power.

"They are not satisfied with the natural reach of their ears, as ordinary asses are, but they must stretch them, electrically, around the whole circumference of their insignificant globe, while they cackle and clack and bray to the very heavens!

"There is one small trapezoid on their spotty globe, which they call the United States of America, that seems to be the storm centre of this cyclone of talk. It has 90,000,000 tongues and 8,000,000 talking machines, two-thirds of the entire number possessed by that whole little bibble-babble world! They have a city called Los Angeles, which contains a machine for every four inhabitants. 'City of Angels' do they name it? City of Magpies, rather!

"What can they be talking about so much? How does it happen that they cannot rest content with the speaking apparatus that nature, already too liberal to such petty creatures, has bestowed upon them? Are they wearying the gods with advice, or wearying their own weak brains with nonsensical chatter? The next thing we hear, perhaps, they will be sending their yawps up to us. These pestiferous little worlds are enough to make a Jovian tired! We only speak when we have something large to say, and among us only wise men are born with tongues."

Such might be the hasty remarks of the derisive philosopher of the planet of Jove upon learning of the vast extension of the telephone systems of the earth, and the news that we are now beginning to talk through the ether, to send our wandering voices out into space on the tireless wings of electricity, would, doubtless, increase his irritation and accentuate his scorn.

But what a sad error he would commit! How his eyes would be opened if he could but pay us a visit! If he were frank he would confess that he had slandered us. If he were really wise he would admit that speech is good for others besides philosophers. And then, too, he would perceive that instead of multiplying vain talk, the telephone restrains it. In extending the reach of speech it restricts its volume locally and teaches brevity, succinctness and clearness. No doubt telephone girls do gossip sometimes, but it is a kind of refined, abbreviated gossip, an improved variety. Unquestionably love messages are occasionally spoken over the wires, but who could object to that? They, too, are refined, abbreviated and made more pointed.

The telephone has done a great deal for freedom of speech, clearing it of obscurity, of prolixity, of pretense, of false modesty, and especially of that element of personal shrinking which affects the sincerity of utterance, face to face, of all but the most frank and fearless spirits. Very few men express their real thoughts as boldly and straightforwardly in ordinary conversation as they do in the quasi impersonal converse that occurs at the telephone. Of course, there is another side to the picture. The man who has something to conceal behind his speech probably finds relief in the absence of the penetrating eyes of his interlocutor when he talks by telephone; he is, as it were, protected by a screen.

Still, the advantage remains with sincerity and frankness, and one can say a painful, but necessary, thing much more easily by telephone. Perhaps if the right of woman to propose marriage is ever put into practice (see *Hearst's Magazine* for October on this subject), it will first be done by telephone. The truth would be told, and the blushes and confusion spared.

It is unnecessary to refer to the enormous saving of time, and the tremendous facilitation of business that the telephone has effected. At the close of 1912 the whole world contained 12,318,000 telephones, of which the United States had 8,357,625, and all Europe only 3,153,000. The city of New York alone possessed 441,128, almost exactly double the number possessed by London. Chicago stood third among the great cities of the world with 279,383 telephones. But Los Angeles and San Francisco held the percentage record, each having one telephone for about every four inhabitants.

After the Jovian Voltaire had studied these facts on the spot he would go back and change his tune; he would then declare that the United States was not the storm centre of useless babble, but the great focus of talk to the purpose, of speech concentrated to its real essence.—*Evening Journal* (N. Y.), Nov. 25, 1913.

Digitized by Google

The Telephone Service in England

Contrast With American Methods

Reprinted from the London (England) *Times*, Monday, December 1, 1913.

POST OFFICE RESPONSIBILITY.

(From a Correspondent.)

To anyone who has had practical experience of the United States telephone service, resulting from private enterprise, the inferior condition of the English service excites no wonder. The history of the telephone in the United Kingdom during the past 30 years has been a lamentable tale of bureaucratic blundering, tolerated by a community which has failed to perceive the potential value of this method of communication and to insist upon its effective organization on a business basis. As the result of a short-sighted Government policy, of official mismanagement, and the parochial attitude of local authorities, the number of telephones per hundred of the population in Great Britain today is 1.4, as against 1.6 in Germany, 2.1 in Switzerland, 3.5 in Denmark and Sweden, 3.7 in Canada, and 8.1 in the United States. London, the greatest city in the world, boasts 2.8 telephones for every hundred of its inhabitants, as against a percentage of 5.3 in Berlin, 11.0 in Chicago, 19.9 in Stockholm, and 24.0 in Los Angeles.

One of the chief obstacles barring the way to satisfactory development of the telephone as a public utility has been the traditional conservatism of the Post Office and the fixed idea of protecting the Government's telegraph revenues against effective competition by the telephone. In 1889, the Postmaster-General (after declining to purchase the telephone patents) brought a suit to prevent the Edison Company from establishing telephone exchanges in London, as constituting an infringement of his telegraph monopoly. Successful administration of an industrial enterprise like the telephone requires vigilant initiative and elasticity.

PRIVATE ENTERPRISE IN AMERICA.

In America the possibilities of the telephone as a time-saving and labor-saving invention were better realized from the outset. Thanks to the intelligence, foresight, and public spirit of Mr. Theodore N. Vail, founder of the telephone enterprise in the United States and still president of the American Telephone and Telegraph Company, the business has been steadily built up with high ideals of organized efficiency and civic duty. Mr. Vail's ambition was, and is, "that every person, firm, or company in the United States that ought to have a telephone shall be provided with one, and that any person so provided, wherever he may be located, can within a reasonable time be connected to the telephone of any other subscriber and talk satisfactorily." For 30 years work has been steadily carried on with this ideal in view, and with marvelous results.

* * * * * * *

Between cities as far distant from each other as New York, Boston, Washington, and Philadelphia "good talking with prompt connections" by underground cables is the regular rule, while communication by phantom loaded overhead circuits has been extended as far west as Denver, distant 2,200 miles from New York.

RESULTS OF EFFICIENT SERVICE.

There is no doubt that the superiority of the American system has been attained in a great measure by administrative ability in its organizers and the wide field of opportunity, with few serious obstacles of competition, in which they have worked. Their outlook has been steadily national, not parochial. They have realized that defective telephonic communication is, in every sense, bad business, and that the factors constituting good service, in the order of their importance, are (1) speed and accuracy in securing connections; (2) volume and clearness of sound transmitted; and (3) cost. They have realized that the money value of the time and temper wasted by the public over a bad service is a far more serious consideration than any reasonable charges imposed for a good one, and they have therefore proceeded on the principle that speed and reliability are more important than cheapness. Furthermore, Mr. Vail's civic ideals have been applied, with loyalty and enthusiasm, throughout. *Esprit de corps,* and a spirit of emulation between exchanges, are encouraged to the utmost. One of the best features of the telephone business as organized in America is the public appreciation of the staff's keenness, its "team work," and pride in efficiency.

Under such conditions the public service retains its human interest—no small factor in smooth working—and the "telephone habit" becomes easily explicable. In January, 1911, the number of telephones in New York was equal to the combined totals of London, Paris, and Berlin.

The following figures, extracted from the 1913 report of the American Telephone and Telegraph Companies' statistical department, are of interest as showing the effect of a satisfactory telephone service on the country's business:—

	Per cent. of total messages.		
Country.	Telephone.	Telegraph.	Mail.
Sweden	72.8	0.7	26.5
Italy	32.1	3.1	64.8
German Empire..	25.4	0.9	73.7
Great Britain	17.7	1.8	80.5
United States	58.7	0.4	40.9

From 1908 to 1909 first-class mail matter increased in the United States by 6.7 per cent., as against an increase of 2.2 per cent. in Europe, while telegrams increased by about the same proportion as in Europe (3.5 per cent.). In other words, the telephone, efficiently handled, makes business for the Post Office.

FAILURE OF GOVERNMENT CONTROL.

In Great Britain the history of telephone legislation has persistently reflected the vacillations of immature opinion, whilst the attitude of permanent officials, of the Post Office, and the Treasury. The situation today is the result of years of *laisser-faire,* improvidence, and vacillation. Its economic defects and inadequate equipment are the natural consequences resultant from the National Telephone Company's inability, as the expiry of its franchise drew near, to provide for expansion of service and renewal of plant. The economical construction of new underground cables alone involves plans and estimates for a period somewhere between 15 and 20 years ahead. Further causes of disorganization lie in the relaxation of discipline and *esprit de corps* consequent upon the transfer of the telephone company's *personnel* to the Post Office; in the jealousies and friction between old employees and new, all tending to impair smooth working; **above all, in the technical telephone staff's recognition of the fact that under the cast-iron, water-tight compartment system of Post Office tradition there is little or no scope**

Digitized by Google

for intelligent individual initiative and scant prospect of applying business methods to the development of what should be a rapidly expanding commercial undertaking, managed by the best technical and financial talent obtainable.

* * * * * * *

American Methods

(From the London *Times*, November 27, 1913.)

To the Editor of the Times:

SIR: There has been a great deal said in your columns regarding telephones and telephoning in London. May I add a few words which may prove of interest to your readers?

As a great deal is being written at this time on the question of telephone efficiency, it may be of interest to hear the opinion of a resident of New York City. From our standpoint telephone efficiency is unknown in Great Britain. Experience in London has satisfied me that where the delivery of a message is of importance it is surer and quicker to use the telegraph, or even the post, both of which are unrivalled in the world. In calling an exchange in New York or Boston, if one does not hear the voice of the operator the instant the receiver is placed to the ear one may be sure that the line is out of order. This seldom occurs unless there has been a storm. If a number is not received immediately one is told why. "The line is busy," and one may be certain the line is really busy. The response "They do not answer" is not accepted, so it is never given. If there is more than a minute's delay in securing a number, the operator is asked to connect with "the desk," the "desk" being one of the officials in charge of the exchange. Connections between New York and Boston are secured in less time than one in London between Mayfair and Paddington. Is it fair to expect efficiency from operators when they have not an effective organization back of them? The operators in the States are in the daytime practically all women. In New York there is a school for operators. One of the first lessons they are taught is that the subscriber is never wrong. These women receive their appointment only when their voice culture and whole personality have been demonstrated suitable. The operators are only expected to work the amount which they are able to do with the maximum of efficiency. One of the reasons of the efficiency of the New York operator is the constant care which she receives; rest rooms and recreation rooms are provided in all the exchanges. No condition of her working environment is neglected. The telephone system in the States has not always been what it is today. It is the result of the persistent effort on the part of the organization to meet the ever-increasing demands of the public.

Yours truly,

M. TUDOR GREEN.

Culmore, Highcliffe, Hants,
November 25.

Meeting An Emergency With Auxiliary Batteries

By H. McDougall, Special Inspector, Newark

ON the afternoon of October 21, at 5:15 o'clock, there occurred a boiler explosion in the plant of the Richmond Light & Power Co. at Livingston, which resulted in the loss of seven lives and deprived Staten Island of electric light and power for several days.

On account of the isolated location of No. 13 boiler, which exploded, the machinery and the other boilers belonging to the plant were not damaged, but a large portion of the main flue was destroyed, so that it became necessary to suspend all operations until repairs could be made.

The New York Telephone Company, like every other consumer on the Island, suffered serious inconvenience until service was restored, the New Dorp Central Office depending entirely upon the electric current supply for power to drive the battery charging machine. The Tompkinsville and West New Brighton offices being equipped with gas engine driven generators were in no real danger at any time of suspending service.

As soon as it became apparent that several days must elapse before electric power could be restored, efforts were directed towards preventing any interruption of telephone service in the New Dorp Exchange.

On Wednesday morning, the day after the explosion, a battery of twenty-five 80-ampere hour cells was obtained from the Edison Company at West Orange and taken to the New Dorp Central Office in an automobile. At the same time two 240-ampere hour vehicle batteries of 11 cells each were borrowed from the Metropolitan Division and shipped to New Dorp in an auto truck.

The two 11-cell batteries were installed in the terminal room of the central office at noon on Wednesday, and were connected in parallel with exchange batteries Nos. 1 and 2, so as to carry the exchange load and at the same time charge the central office batteries at a low rate. (The capacity of No. 1 battery is 480-ampere hours and that of No. 2 is 200-ampere hours.)

After 30 hours, the gravity of the central office batteries had risen to a point which made it safe to disconnect the emergency battery at night and allow the central office batteries to carry the load from 6:00 P. M. to 8:00 A. M. This was done Thursday and Friday nights, the vehicle batteries being connected during the day.

A second battery of Edison cells was ordered and received at the New Dorp Central Office on Friday morning. On Saturday at noon the vehicle batteries were disconnected and removed to the West New Brighton Central Office to be charged, and the two Edison batteries installed in their places. The vehicle batteries were charged at West New Brighton on Saturday night and returned to New Dorp on Sunday morning. The Edison batteries remained in service until Sunday afternoon at 4:30, when they were disconnected and the load was carried by the Central Office batteries.

At 8:15 P. M., Sunday, October 26, repairs were completed at the power house and electric light and power service was restored. Next morning the New Dorp Central Office batteries were charged in the regular way for the first time in six days.

Digitized by Google

The Importance of Prompt Medical Advice and Treatment in the Presence of Disease and Injury

By Dr. Alvah H. Doty

Medical Adviser of the Employees' Benefit Fund Committee

Reference has been made in preceding articles to the need of prompt medical advice and treatment in the presence of disease and injury; unfortunately, the importance of this is but little appreciated, and it is necessary that special reference should be made to it for, in the light of our present knowledge of the prevention and treatment of disease, the most successful results may be obtained if proper means are employed. On the other hand it would be difficult to overestimate the loss of life and the number who are permanently invalided or crippled through neglect in this direction. The latter is largely the result of what may be termed home treatment, for it is very generally believed that the so-called simple affections may be cared for without the aid of a physician. The danger of this practice lies primarily in the fact that those who are not physicians are not competent to decide when impaired physical conditions are simple and practically devoid of danger and what symptoms may be forerunners of some serious affection. Cases of this kind are constantly occurring; for instance, persons having appendicitis are not infrequently treated at home for indigestion or for some alleged simple stomach or bowel trouble, and the necessity for prompt medical attention is not recognized until it is too late to render aid to the patient. Sore throat among children is often believed by mothers to be some unimportant affection, probably the result of a cold, when the truth is that diphtheria is present in a mild form, but still infectious, and the disease in this way is many times transmitted to others and sometimes with a fatal result. This also frequently occurs in connection with scarlet fever and measles. Mild or unrecognized cases of smallpox are often mistaken for some simple skin eruption or so-called stomach rash, and treated with domestic remedies, and through exposure in this way a large section of the country may become affected. These are not occasional but common occurrences, particularly in connection with tuberculosis, for a large percentage of these cases are treated at home usually as common colds and the disease is often far advanced before its true nature is recognized. This not only seriously interferes with the recovery of the patient but for want of proper precaution infection may be transmitted to others. The public is yet to know the frequency with which some of the most dangerous diseases occur in a mild or unrecognized form.

Home Treatment

In some sections of the country it is difficult or practically impossible to secure medical advice; besides, even in built up communities accidents may occur which demand instant relief, and it is therefore very much to be desired that everyone should, so far as possible, become familiar with various simple and practical means by which emergencies may be dealt with until the arrival of a physician, for through this aid many lives have been saved; however, this deals rather with emergencies and is intended to render such help as may be available only until proper medical care can be obtained.

It is not expected that the many simple aches and pains and trivial injuries which commonly affect us and which are of brief duration shall require the attention of a physician, but home treatment, which is so general in this country, is not restricted to apparently simple conditions but includes the continued use of domestic remedies in cases where even laymen should be able to detect evidence of serious maladies, particularly where fever is present or where well marked or acute symptoms are referred to the head, chest or abdomen.

Home treatment is employed largely for economical reasons although as a matter of fact it is not really a saving, for oftentimes serious results follow this practice, and in this way a far greater expense is involved than if prompt medical care had been obtained.

Dangerous Nostrums

Curiously enough a person will promptly consult a lawyer if some simple legal question is involved or will quickly send for a veterinary surgeon if a valuable animal is sick, but he will at the same time prescribe for his children or other members of the family without the least concern as to the result. This practice is aided and abetted by charlatans and manufacturers of patent medicines who, with no scientific knowledge of the subject, prepare and offer for sale innumerable nostrums warranted to cure every ill. It is hardly necessary to state that almost every home contains some of them, particularly headache powders or tablets. Those who use the latter know nothing of their composition and danger, for they are composed chiefly of coal tar products and are extremely depressing to the heart. The wealth amassed by the manufacturers of these articles is evidence of the credulity of the public. The more serious the disease the more numerous are the remedies offered for its treatment. This is best illustrated by the many consumption cures which are offered for sale and which are not only absolutely worthless but the time which is lost through their use often robs the patient of the chance of recovery which would be assured him if proper treatment was employed. It may be very truthfully said that a person who treats himself employs a poor physician and usually suffers in consequence.

Today there are many dispensaries and various other means of securing medical advice and treatment for those who cannot afford to pay for them, and there is no good reason why at least those who live in cities should not be able to secure the attention of a physician if required.

Disinfectants and Deodorants

In close relation to home medication is the misconception on the part of the public regarding the definition and use of disinfectants which are generally confounded with deodorants and purchased for the purpose of preventing or neutralizing offensive odors. The function of a true disinfectant is to destroy infectious germs and not odors, for even the most valuable disinfectants cannot be depended upon for this purpose. On the other hand deodorants are agents which neutralize offensive odors chiefly by chemical means but cannot be depended upon to destroy infectious germs.

During recent years the public has gained some information regarding the germ theory of infectious disease, but it has been limited and has rather

Digitized by Google

encouraged the belief that infection exists everywhere and that it is with great difficulty that we escape germs in their active state concealed in clothing, baggage, money, furniture, etc., and also in public places and conveyances. As a matter of fact this condition does not exist, for the fear of infection through these sources is largely without reason. Many unnecessary and ridiculous means are taken by the public to prevent disease and this state of mind has been stimulated by an ever-increasing supply of so-called disinfectants which are advertised to free the home from all forms of disease. Many of these are of no practical value whatever, and while others may under certain conditions be destructive to infectious organisms, their use in the household is as a rule uncalled for except in the presence of infectious diseases, when the disinfectants should be selected by the attending physician and used under his direction.

A number of deaths have recently occurred as the result of poisoning by bichloride of mercury or corrosive sublimate tablets, presumably taken by mistake for some headache cure or other patent medicine. Bichloride of mercury, as well as other poisons, is often purchased for home disinfection, although as a rule the purchaser has no definite knowledge of the subject, but relies chiefly upon the advertisements and information which may be transmitted from one person to another. The sale of these articles should be not only prohibited by law except upon the prescription of a physician, but the public should know that these agents, except in special instances, are not necessary to insure a sanitary condition of the home, for this is obtained by fresh air and cleanliness, which includes a plentiful supply of soap and water. If this is properly carried out, there should be no offensive odors in the house and the use of disinfectants should be left for the attending physician to look after when disease occurs.

An Effective Deodorant

In country districts or in places where there is no modern system of sewerage or proper outlet for filth, offensive odors occur in connection with privy vaults, cesspools or where garbage is deposited on the surface of the ground even when great care is used. This unpleasant condition is due to decomposed organic matter and requires the use of a deodorant and not a disinfectant, for it would be practically impossible to destroy the infectious organisms which might be present in such a mass unless every portion of it is thoroughly mixed with the disinfectant, which never occurs; besides, disinfectants would not necessarily destroy odors. Under these conditions a deodorant need not be purchased, for the most valuable and practical one in use may be provided with but little trouble or expense by adding a pound each of *unslaked* lime and sulphate of copper to ten gallons of water. This mixture costs less than one cent a gallon. If a large quantity is prepared for future use it should be kept in a closely covered receptacle, otherwise the water will evaporate. Furthermore, this mixture does not easily dissolve and should be thoroughly stirred before using. There is no better or more economical way of applying it than by the common garden sprinkling pot. By this means the offensive material may be properly covered and the application repeated as often as necessary with but little cost.

This article will have been productive of some good if it has brought to the attention of the reader the danger of depending upon domestic remedies, the use of patent medicines, disinfectants, etc., and need of prompt medical care when the health is impaired and the employment of simple measures of cleanliness and plenty of fresh air in keeping the home in a good sanitary condition.

Athletics

N. Y. T. A. C.

Tennis

WITH the consent of Jupiter Pluvius the New York Telephone Athletic Club succeeded in bringing its annual tennis tournament to a close on October 18. The singles were won by Poole, who was forced to the limit by his closest competitor, Smith. Wielding his racquet à la McLoughlin, Poole also carried off the honors in the doubles, being ably assisted by his partner, Russell.

Club House

True to its promise, the club has supplemented talk with action and the Club House will soon be a reality. The site has been decided upon, and bids have been received from four prominent athletic and gymnastic outfitters. There will be everything an up-to-date gymnasium requires, including bowling alleys, pool and billiard tables, handball courts, etc. It will be some time before the housewarming is held, but this event will be well worth waiting for.

Members are urged to show more spirit in attending meetings, which are held in the temporary club rooms on Spring street.

Club Notices

The Secretary states that he is having difficulty in securing answers to the notices sent to members and earnestly requests prompt and careful attention to communications of this character. M. A. McDermott, Financial Secretary, announces that he will cheerfully accept dues at 24 Walker Street.

Bowling in Buffalo and Syracuse

THE eight teams in the Buffalo Telephone Bowling League are keeping the alleys clear. The standing on November 22 showed the Commercial Men and the Engineers tied for first place with the fine record of 19 victories and 5 defeats. The former, however, have a high score of 984 and total pins of 2,664, as compared with 902 and 2,615 for the latter. These two teams have apparently a safe lead, but the season is young, and they must hustle to hold their advantage.

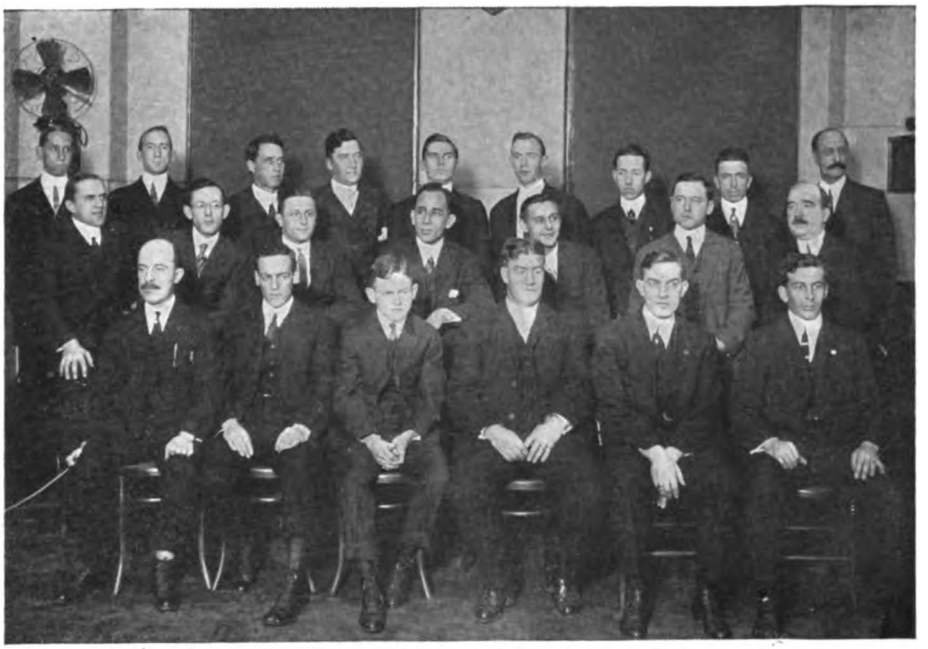
In the Business House Bowling League of Buffalo, the New York Telephone men are making a fine showing. On November 22, they were setting the pace in both the five-man and two-man events against 29 competing teams, with a record of 25 won and 2 lost in the former class and 21 victories and 6 defeats in the latter.

The teams in the Business House League are composed of employees in thirty of the leading concerns doing business in Buffalo.

Syracuse is also on the bowling map, twelve departmental teams being entered in a fall and winter tournament. With 14 games won and 4 lost the Advertising Department is setting the pace with the Assigning Department, District Plant and Plant Engineers close behind. Some excellent scores have been made and the race promises to be a close one.

Teams in other localities are invited to send in their scores.

Digitized by Google



Metropolitan Night Force—Senior Inside Men.

Left to right—Top row: W. F. Casey, D. M. Hoar, E. L. Gilbert, C. H. Mahoney, E. W. Jones, C. Watkins, H. A. Underwood, E. J. Hughes, F. M. Hill. Middle row: C. H. Barnes, J. I. Bachman, H. Havekost, V. S. McAllister, F. Baecker, W. McCullough, R. J. Chester. Bottom row: J. G. Fitchett, L. M. Allen, P. W. Jones, J. Quigg, H. A. Davis, F. K. Troman.

The Metropolitan Night Force

BACK in 1896, the late W. M. Stewart, District Inspector, assigned the first man to night Central Office work. It was the duty of this man to clear switchboard trouble which could not be handled by the inside day men without disturbing the operators. He spent part of the night at three Central Offices, Spring, 18th Street and 38th Street. Not long after, two more men were assigned to this work, to care for the district south of 38th Street.

The success of this plan demonstrated that not only could trouble be cleared by a night force without inconvenience to the Traffic Department, but could be done more thoroughly and economically. Consequently, in 1899 six more men were assigned to this work under the supervision of T. P. Lovering.

With the growth in Central Offices the Metropolitan Night Force has kept pace, until today it is composed of 75 men. The bulk of their work consists of trouble-clearing on the "A" and "B" boards, and making tests to prevent the development of trouble when the apparatus is in service.

The importance of the equipment and apparatus being able to perform their respective functions cannot be exaggerated, for otherwise it would be impossible for the Traffic Department to furnish the high grade of service that has made New York the model telephone city.

The following figures will give an idea of the amount of this work handled.

"A" board circuits tested daily, 19,670.

"B" board circuits tested daily, 9,037.

Average number of "A" board troubles cleared daily, 643.

Average number of "B" board troubles cleared daily, 181.

Other duties of this force are the testing of subscriber lines for insulation and continuity and the investigating of troubles on subscriber lines and trunks in order to discover cable failures.

Occasionally trunk cable failures affect a number of trunks in one group, and where the service is likely to be affected it is necessary to re-route trunks. On these occasions the men always respond in the proper spirit, and as a result of their efforts considerable progress is made toward providing the Traffic Department with the necessary number of trunks.

During the past year an evening man was placed in most of the Manhattan Central Office buildings, as it was found that much of the work being done by the night men could be handled during the evening hours. By this arrangement a Plant Man is on duty at all hours. The evening force consists of 13 men.

The duties of the Night and Evening forces are interesting. The men are placed under the supervision of a Night Senior, one of whom is located in each Central Office. Most of these men are not satisfied with only the knowledge necessary to do their work, but proceed to make a study of the field in general. To be successful they must acquire a practical knowledge of electricity and its application to telephony, and become familiar with all Central Office circuits.

About once a month the Seniors get together and discuss matters of interest in connection with their work. The accompanying photograph was taken at a meeting on Nov. 14. L. M. ALLEN, Night Wire Chief, Metropolitan.

The Buffalo Night Force—Yesterday and To-day

"IN time of peace prepare for war." This used to be the method carried out, but some famous statesman has revised the saying as follows: "In time of peace prepare for more peace." How does this apply to the telephone business? From all reports it seems that maintenance men (night inside men) in some central offices, not so many years ago, adhered to the old standard policy.

Let us take a new exchange just cut into service in the old days. After the first week everything would be running quite smoothly. The boys found fine pastime in entertaining the gentler sex, if not in person, over the telephone, or else in shooting craps. "Odd man pays; go you for a quarter,"—a faint whisper would sneak through the verticals of the main frame,—"Ace of spades; I win!"

This would go along for some time. Meanwhile (during the reign of peace), the maintenance locker would be stocked with ammunition, namely, 300 rounds of plugs and cords, 12 pounds of solder, each man one soldering iron and one head receiver with picks, etc. After a few weeks of calm and quiet, Traffic would declare war on the Plant department. One night of real work and the battle was over; the maintenance locker would be recharged with the necessary equipment for the next attack, and so on.

But to-day the boys say: "In time of peace prepare for more peace." Instead of entertaining the fair sex, and shooting craps, they entertain themselves by shooting trouble and carrying out routine tests, not allowing trouble to accumulate, and thus preventing any attack being made by the Traffic force.

Digitized by Google

The Buffalo boys wish to recommend this slogan to the boys of the Western Division and the other divisions:

"In time of peace prepare for more peace." How to do it? Watch the little black book and carry out routine tests.

Social Organization

On the evening of November 18, the Night Force of Buffalo and suburbs held its first get-together meeting of the winter in the Telephone Building, Buffalo. After the election of officers, John Lee gave a long and enlightening talk, illustrated by lantern slides, on various European telephone exchanges he had visited.

Chairman Ben Bechman, Sr., announced that the name of the society would be "The Buffalo Knights."

J. TABRAH, Plant Dept., Buffalo.

Co-operation in the Westchester Division

TOO much emphasis cannot be placed upon the importance of co-operation between departments in order that the best results may be obtained. I noted with much interest the report in the September issue of THE TELEPHONE REVIEW on the splendid co-operation which exists between the Commercial and other departments of the Company in the Western Division. A similar co-operative spirit has been adopted in the Westchester Division, and, beginning October 1, a record was compiled of prospects turned over to the Commercial Department by the employees of other departments in the Nyack District. The following is a brief summary of the results for the months of October and November:

Employee	*Department*
H. R. Strahlman	Local Plant
H. C. Smith	" "
D. J. Devine	" "
W. Hegner, Jr.	" "
Geo. McCandless	" "
E. Merrick	" "
E. G. Foust	" "
J. H. Hahn	" "
F. J. Muller	Construction
L. M. Austin	Traffic
J. H. Bedford	"

The prospects turned in were so excellent that it required very little effort on the part of the Commercial Department to secure the contracts. In the case of Mr. Smith, the contract was actually taken by him and turned over to us without any effort on our part, except to furnish the details

We do not ask the employees of other departments to do this work for us, but rather that each employee will be on the lookout for prospects for new or additional service and give the facts to the Commercial Department.

While no record was kept of cases referred to other departments by the Commercial forces during the months of October and November, I know that many cases of importance for the improvement of the service were reported to both the Plant and Traffic Departments. Prompt attention to these cases resulted in more permanent construction, more reliable service and better satisfied subscribers.

We have in the Nyack District approximately 100 employees. If each employee could be responsible for at least one new station each month, think what a substantial service this would be not only to the Commercial Department but to the Company.

No. of Prospects	*No. of Contracts Secured*	*Annual Revenue*
3	3	$60.00
1	1	24.00
1	..	.....
2	2	12.00
1	1	30.00
1	1	42.00
1	1	18.00
1	1	6.00
1	1	30.00
1	1	30.00
3	2	30.00
16	14	$282.00

A. S. ROSSBOROUGH,
Local Com. Mgr., Nyack.

Putting Your Best Voice Forward

IN the *Hotel Gazette* (N. Y.) of November 22 there appeared the following article which is one of the best that we have seen from the standpoint of the subscriber who is anxious to obtain the greatest benefits from his telephone service. Even a half-hearted interest in his business should be sufficient to make a man take steps to prevent business being actually driven away.

Telephone employees can perform a valuable service, both to the company and its patrons, by continually observing themselves and calling attention to infractions by others of the precepts embodied in this reprint:

ABOUT TELEPHONING.

By F. A. THYM

The New York Telephone Company had a very interesting advertisement among the series it is publishing in the daily papers these days. It drew the reader's attention to courtesy in telephoning and the great help this may be in the promotion of our business.

None need this hint more than hotel men. Most of the business of hotels, engagement of rooms and tables, is done by telephone. Courtesy over the telephone is worth money to you.

I do not mean so much courtesy after you have ascertained whom you are talking to, and after you know that it is worth your while to put your best voice forward, but courtesy to unknown voices, to strangers.

It is all a matter of detail. The lack of courtesy is not so much the fault of the telephone operator as the fault of the manager, who neglects to give her instructions, or gives her wrong instructions.

When I call up Hotel Boniface and the operator answers "Well," or "Yes," or "Hello," I know instantly that something is wrong with the management of the Hotel Boniface.

In answering my call, the operator, instead of saying "Well," or "Yes," or "Hello," should say, "Hotel Boniface." This relieves me at once of the necessity of inquiring whether I have Hotel Boniface on the wire and impresses me favorably.

If the operator does not know who is talking, she should not give the talker the impression that she thinks he is a tramp; she should treat him as a personal friend of her employer, to whom she owes respect. She should take time and trouble in ascertaining the caller's name and getting it right; should take trouble in ascertaining correctly to whom the caller wishes to talk, and should show an interest in his endeavors to get the connection.

I am convinced that more business is lost to hotels by abrupt or indifferent telephone answers than managers are aware of.

The manager should test his operators personally at periodical intervals from distant points, and place himself in the position of a stranger who wishes to secure accommodation or transact other business, just to see how his telephone is handled when he is not around.

Young men are notoriously unable to answer strangers over the telephone in a polite or intelligent manner. Anybody will agree from his own experience that it is bad business to have a young man in charge of the telephone. There are, of course, exceptions, but girls are far preferable and there are plenty of them.

In engaging your girl operator, do not be satisfied by getting the references from the various hotels where she has worked and then say to her, "Well, with all your experience you must know all about it and won't need any further instructions. You can come to work to-morrow morning at seven." You should take pains to let her know just how you wish her to handle your business and let the personal note of your own character pervade the wires connecting you with the outside world.

Our Cover

THIS month's cover has been reproduced on postal cards which will be distributed in the usual way through this office or upon application to the Advertising Department in the several Divisions.

A full size reproduction of any of our cover designs for framing (without printed matter on it) can be obtained by sending a 2c. stamp to the office of THE TELEPHONE REVIEW, 15 Dey Street, New York City.

Digitized by Google

Window Display in Perry, N. Y., Installed by Perry Telephone Co.

Connecting Company Window Trim

THE Perry Telephone Co., a connecting company located at Perry, Wyoming Co., N. Y., recently trimmed a window in Commiskey's Market which caused much favorable comment, and was a decided novelty in window trimming in this locality. The window was divided into two sections by the entrance, and in trimming the window one section was used for the showing of outside construction and the other for inside equipment.

The outside construction was shown by setting a pole in a large box of sand, the pole being painted, stenciled and equipped with a six-pin cross arm and insulators. Short sections of No. 12 wire were tied in place on each glass. On the pole below the arm was a short section of aerial cable and a standard distributing can, from which jumpers were run to the arm and there connected to the wires with line connectors. Thus was shown the standard treatment of a pole, from the placing in the ground to the placing of the subscribers terminal.

In this window at a position at one side and near the walk was placed the New York Telephone Co.'s Window Trimming Device which, in connection with the pole, made an exceptionally good educational window.

The other section of the window was lined in the rear and at one end with green burlap and in the center was placed a W. E. No. 1801 Non-Multiple Switch Board, complete. On the wall were placed Hotel Sets, eighty fives and thirteen seventeens, and several desk sets were placed on the floor of the window and one on the top of the switch board. Each of the telephones had a locality card hung on the transmitter, and as far as possible the same style or type of instrument was used in designating the locality as is actually used at the particular place shown. Cards were also used calling attention to the number of telephones (1124) in the exchange, the small cost of extension telephones, the excellence of the goods sold by Commiskey's Market, the fact that it has four telephones and two direct lines to the telephone Central Office, and informing the public of its interest in filling orders telephoned in.

On the outside of the store was placed a large banner with the old familiar slogan: "All Telephones Lead to Commiskey's Market." In connection with the window several hundred sets of Telephone Postal Cards and many circulars were given out to the people who were interested in the exhibit.

R. S. BAKER,
Local Manager, Perry, N. Y.

Silver Creek and Forestville

Bell Telephone Service Wanted and Quickly Secured

"IS this the District Manager at Jamestown?"
"Yes."

"Well, this is G. W. Mount, at Silver Creek. I believe the Bell Company can come into this territory and get 400 subscribers."

From the above conversation, held on April 11, it may be easily deduced that Silver Creek and its sister village, Forestville (which are located in that part of New York State known as the Grape Belt) wanted the Bell as soon as possible.

At that time the New York Telephone Company operated a small magneto exchange in Forestville, with a total of 49 subscribers, but Silver Creek, with its population of 2,512, had only four public and four flat-rate telephones.

The prospect of 400 new subscribers meant action, and the Division Commercial Manager at Buffalo and District Manager at Jamestown lost no time in marshaling their forces and laying plans to secure the business.

An energetic campaign was instituted to get at least 300 signers to a petition promising to subscribe for Bell telephone service in Silver Creek. Co-operation between the citizens and the Company was at fever heat and the required number of subscribers was obtained by April 21. On May 23 over 400 contracts had been signed.

The engineers had been busy in the meantime preparing for a quick jump into the territory, and the results of the campaign are shown by the fact that there are now 402 Bell telephones in Silver Creek and 167 in Forestville, and the service is giving complete satisfaction.

This campaign is unique in the fact that unfavorable conditions in the past had made it impossible to install complete Bell service in this territory. However, there could be no surer indication that conditions had changed than the urgent request of residents for our service, and the alacrity with which they signed the petition and contracts. Silver Creek and Forestville wanted Bell telephone service, and they got it in remarkably short order.

L. J. DAVEY,
Dist. Mgr., Jamestown.

Telephony

"Hello, Girt—this is George."
"Oh, Gawge, how d'you do—I was just going to retire for the night——"
"Oh, I see——"
"Gracious—hide your eyes quick!"—*Chaparral.*

Digitized by Google

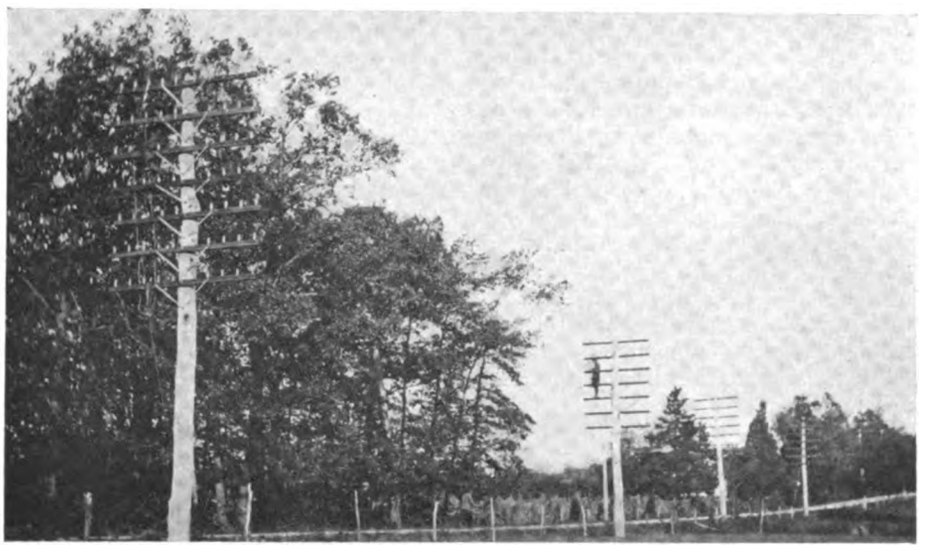
Freak of the Wind

By B. T. Tighe, District Traffic Manager, Asbury Park

THE night of Monday, October 20, was a busy one for the local plant department of the Monmouth County (N. J.) District. On this night a very strong wind was blowing out of the south. At 9:30 P. M. one of the two large plate glass windows in the Lakewood central office was blown in by an extra strong gust of wind. A messenger was sent for the local plant representative, who promptly secured a tarpaulin from the construction wagon, which was doubled and fastened securely in the frame of the window, and was effective in keeping the office warm and comfortable until the glass was replaced two days later.

During this same night at Wayside, N. J., a tree on the opposite side of the road was blown over on the big South Amboy-Asbury Park trunk line. This line, which is a 7-arm, 10-pin pole line, carries thirty-three pairs of wires. When the Asbury Park operator started to make the night trunk test shortly after 5:00 o'clock on the morning of the 21st it was found that she could not raise New York on any trunk. Realizing that this condition indicated a bad line "break," she immediately called the District Traffic Manager. Tests were made at once, it being found that all New York and Newark trunks from Asbury Park, Spring Lake and Point Pleasant were out of order. In the absence of General Plant Foreman Applegate, who was on a vacation, Supervising Foreman Allen, in charge of the district, was notified of the trouble at 5:15 A. M. Securing the plant automobile, he started out to cover the line, and at 5:45 A. M. he located the trouble at Wayside. After examining the "break" he returned to Asbury Park where he collected a gang of four men and secured the necessary material, after which he returned to the "break" and the work of restoring the line was started at 7:00 o'clock.

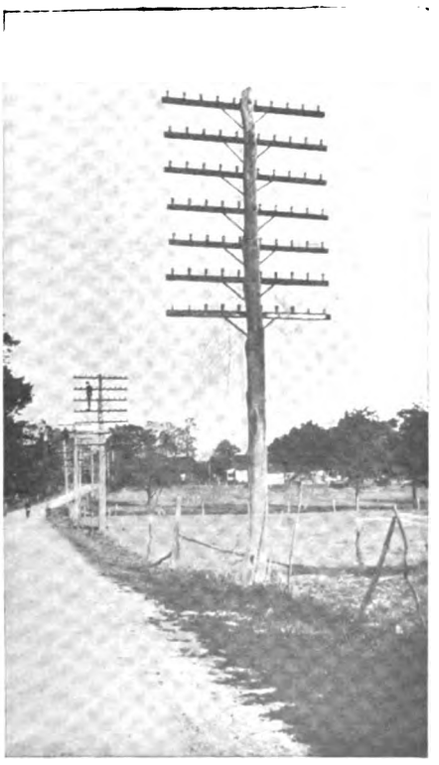
The lines, including phantom circuits, involved in this trouble consisted of 27 New York trunks, 8 Newark trunks, and 1 rural line. To close the "break" it was necessary to use over 300 pounds of copper wire, make 132 ties and also 132 sleeve joints. The "break" was completely repaired at 12:00 o'clock noon.



Section of Telephone Line Carried Away by Tree During Terrific Windstorm.

The promptness with which the local plant department took care of the Lakewood incident and repaired the "break" in the trunk line is very gratifying, and shows further the resourcefulness of that department in times of emergency.

The accompanying illustrations are from kodak pictures taken shortly after 7:00 A. M. One shows the section that had been pulled down by the tree, and the other shows how the wires doubled up in the adjoining sections. The tree had been removed by farmers on their way to market.



Showing how the Wires doubled up in the adjoining sections after the tree had carried away the intermediate section during windstorm.—Wayside, N. J.

The Telephone Cuts Expense

UNDER the above title, *Business* (magazine) says:

"The manager of a big eastern office, many of the employees of which have frequent communication with men outside the office, but in the town, observed that a great many times letters were written when a telephone call would have served equally well, if not better, especially in point of time. He questioned several of the men and was surprised to find that they were under the impression that a two-cent stamp was less expensive than a telephone call—that they thoughtlessly did not consider the cost of stationery and stenographer's time."

The article then goes on to say that the manager wrote a personal note to each of the men explaining the economy of the telephone, and the result has been greater efficiency and less expense.

This is a good talking point for our company's salesmen, for easily as it can be demonstrated, it is probably little thought of. Most people are more or less creatures of habit, but there are few who cannot be reached through their pocketbook.

Digitized by Google

How the Telephone Captured a Burglar

By Miss Edith M. Gregg, Pay Roll Dept.

ONE Saturday night, not long ago, my mother, whose room is in the front of the house, went to the bay window to draw in the blinds. She paused in the act of doing so, and happening to glance out of the window, her attention was drawn to three rather rough-looking men who were standing on the corner. As there had been several burglaries committed in the neighborhood during the preceding week, she decided to watch these men. Presently, one of them took off his derby hat, which he handed to one of his companions. Then, pulling a black cap, with a large visor on it, out of his pocket, he put it on his head, pulling it well down over his eyes. Next he took off his overcoat, which he also handed to his companion, and my mother could see that he was attired in a black sweater.

Her suspicions now fully aroused by these mysterious actions, she ran to the telephone and called up Police Headquarters, who in turn connected her with our local Precinct. In answer to the Captain's "Hello!" mother said, "There are three men standing on the corner here, whose appearance and actions are very suspicious and I am sure they are burglars!" The Captain laughed in a superior sort of a way and said, "Oh, don't worry about them, madam, they are three detectives I have sent out there to try and catch the gang of burglars which has been operating in that vicinity lately." Click! He had hung up the receiver. Still unconvinced, mother decided to station herself at the window and watch. By this time, my sisters and I had been aroused, and shared her vigil. We had not long to wait, for just as the clock was striking the hour of twelve (in the suburbs, folks are wrapt in deep slumber at that hour) one of the men walked down past our house to the next street, where he stood on that corner, looking cautiously in every direction, his companions on the first corner also on the lookout.

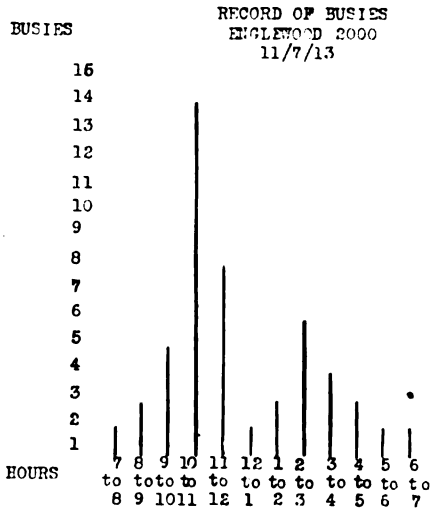
Finally, having assured himself that "the coast was clear," our man in the cap and sweater ambled slowly in the direction of our house, stopping two doors above. Boldly opening the gate, he tip-toed up the front stoop. We looked at one another and our hearts almost stood still. Convinced beyond a doubt that the man was certainly not a detective as the Captain had stated, mother seized the telephone once more. In the meantime we could hear Mr. Burglar as he tried the front door. Apparently that was securely bolted, for presently a cr-r-rk, cr-r-rk told us that he must be prying open the window. "Hello!" said mother at the telephone, "Is this the Police Station? Well, this is the lady who called you a little while ago to tell you about the suspicious-looking characters standing on the corner. Please send some one immediately. They are burglars and I am watching one of them break into a house two doors away. He has just tried to open the front door. Oh! He is prying open the window with a crowbar! He has it open! He is in! Oh," excitedly, "please hurry!" "All right, madam," said the Captain, convinced that it must be a burglar after all. "I will send some of my men out there right away." Greatly relieved, mother hung up the receiver. Then a sudden thought struck her and going to the telephone again, she called up the man in front of whose home one of the three men was standing. In answer to his astonished "What is the matter?" she related the whole story, advising him to keep an eye on the man on the corner, which he promised to do.

Meanwhile our little group watched breathlessly at the window. There was a deathlike stillness. Fifteen or twenty minutes had passed, but to us, it seemed an hour since the man had entered the house. Suddenly the air was rent with piercing shrieks of "Help!" "Murder!" "Police!" Dogs began to bark. Windows in the neighboring houses were hurriedly raised and heads excitedly thrust out. Even the roosters in the nearby poultry farms crowed lustily, adding to the general confusion. In less time than it takes to tell, the house was surrounded by Police, who, on entering found the man of the house on the floor grappling with the burglar, while his wife sent forth her cries for help. One bag filled with choice bric-a-brac and another with silver were all tied up, ready to be taken away.

The Police congratulated mother for being so persistent in calling up the Police Station, and told her that the man was one of a gang they had been trying to capture for some time. They eventually succeeded in getting all of them, and all because we have a telephone and had the presence of mind to use it, thus making it the means not only of capturing dangerous criminals, but of saving lives and property as well.

A New Style Record of the Busies

ONE of the most effectual means we have discovered to induce Busy Subscribers to take additional facilities, Party Line Subscribers to regrade to Direct, etc., is to submit a graphic record of Busies, for a certain period, worked out in days, or a selected day arranged in



New Form of Busy Report Devised by H. Bell, Local Commercial Manager, Englewood.

hours, or some other variation, to meet the special case being dealt with.

It brings the case clearly before the Subscriber, and the fact that we have taken the trouble to present it to him in this shape impresses him favorably. The time involved in preparation is inconsiderable, and is well warranted by the results. H. BELL,

Local Com. Mgr., Englewood.

Individual Responsibility

Have you ever heard the Company criticised? If so, did you take the Company's side and make an effort to explain away the prejudice, or did you side in with the complainant with the remark, "Yes, I know, but that's a rule of the Company," and at the same time permit yourself to be patted on the back and hear the words, "Bill, you are all right, but that Company of yours is the limit"? I fear that too often many of us fall for the flattery and forget our duty as employees of the Company to always defend it. At such a time we should feel our individual responsibility and take it upon ourselves to free that mind of any growing prejudice against us. The matter complained of may be your mistake or the mistake of a fellow employee in the organization, and if a mistake, it can be easily explained away. Or if it is a regulation of the Company there is a reason for it, and if you don't know the reason or can't explain the error, get the party in touch with someone who can. This kind of co-operation would establish for us in the eyes of the public a most enviable reputation for full, complete and satisfactory service.—W. J. P. in the *Pacific Telephone Magazine.*

Digitized by Google

The Telephone and the Telautograph

HOW the telephone in a large hotel installation is supplemented by the Telautograph is interestingly described in *The Pibroch*, a monthly publication issued by the Hotel McAlpin, New York City.

In this hotel there are nearly 2,000 telephones, and the estimated usage is 500,000 local messages annually. This requires a force of 44 operators.

A complete account of this installation was printed in THE TELEPHONE REVIEW for February, 1913, and in that article frequent reference is made to the Telautograph.

(From The Pibroch.)

A story is told by an old Chicagoan that one day in the winter of 1886, or 1887, he entered the office of a friend, a well-known Chicago financier, and found this financier gravely watching a tall, gray-bearded man manipulate a cane and umbrella which had their handles hooked together, and was sliding them about over the top of a flat desk, while he told of a new kind of telegraph that he had gotten up.

The gray-bearded man was Elisha Gray, of telephone fame, and with the cane and umbrella he was demonstrating the principle of the now well-known Telautograph pen arm movement.

Whether this story is true or not, it was about this time that Mr. Gray built his first telautograph.

It was smaller than a grand piano and its mechanism was composed mainly of weights and strings, but it worked, and actually transmitted handwriting, after a fashion, over wires between the inventor's house and his laboratory, about five hundred yards distant.

The results obtained with this crude instrument were sufficiently encouraging to Mr. Gray to cause him to put in a great deal of hard work during the next few years endeavoring to develop an instrument that would be suitable for commercial use.

* * * *

. . . In 1895 the first test was made of the telautograph under conditions that were "commercial" to some extent. In that year a sort of auxiliary Republican convention was held at Cleveland, and many well-known public men were delegates to that convention. The Chicago "Times-Herald" secured wires between Cleveland and Chicago, and the telautograph was installed on these circuits. A number of the delegates telautographed to the "Times-Herald" their views on the political situation, and these autograph messages were reproduced in facsimile in the columns of the "Times-Herald."

While this trial demonstrated that the telautograph would operate over long distances, yet the Telautograph Company did not feel satisfied that the instrument was in commercial shape, and several years more were spent in working out improvements. Up to 1899 the telautograph was designed to operate upon what is known as the "step-by-step" principle, in which the motions of the transmitting pencil are transmuted into electrical impulses, the number of the impulses being proportioned to the distance the pencil is moved. These impulses traversing the line wires are converted into mechanical impulses at the receiving instrument by means of electro-magnetic escapements, which cause the receiving pen to move the same distance that the transmitting pencil is moved.

In that year it was decided to develop an instrument that would operate upon what is called the "Variable Current" principle, in which the motions of the transmitting pencil cause variations in the strength of a continuous current, which traversing the line wires will at the receiving instrument effect changes in the strength of electro-magnets by which the pen is moved in unison with the transmitting pencil.

The present telautograph operates upon this principle.

The greatest problem encountered in developing the telautograph has been to design an instrument which will be sensitive enough to reproduce the smallest movement of the transmitting pencil, and yet to be not at all fragile but substantially built—an instrument that will preserve its adjustment under the most severe conditions.

That this problem has been solved in the present telautograph may well be indicated by the many various services to which it has been adapted. For example, it has been mounted upon the heaviest type of coast-defense gun and its adjustments are not disturbed by the concussion from firing the gun. It is used in rolling mills and in steel plants, where it is subjected to heavy and continuous vibration.

Probably the most severe test is that of continuous service as exemplified in hotel installations.

The telautograph was first used in hotel service in 1898, when one set of instruments was installed in the Hotel Majestic of New York. It is now recognized as an important factor in securing the highly efficient service of modern hotels.

The Hotel McAlpin has probably the most complete telautograph equipment of any hotel, having about 165 instruments in its service, and in The McAlpin about two hours per day of one man's time is required to keep the telautograph inkwells filled, although but a small fraction of a drop of ink is consumed in each line of writing. Also a ton of telautograph paper (about 50 miles) is used per month in this hotel. This will indicate that the telautograph does not play an idle part in The McAlpin service.

The flexibility and usefulness of the telautograph in hotel service are best illustrated by the part this instrument plays at the Hotel McAlpin in the speedy location of a guest who may be in some public part of the hotel. This service is commonly referred to as "paging." On each of the public floors of the hotel, including the Main Lobby, the Grill Room floor, the Tapestry Gallery and the Roof Garden, are located floor offices equipped with telautographs and public telephones. Each office is in charge of an attendant, who directs the work of the page boys on her floor, operates the public telephones and renders any special service to guests which she may be called upon to do.

The telautographs at these paging stations are so connected that messages appear simultaneously at all stations. The pages thus start the search for the guest on all the public floors at the same time, the attendant having only to tear off the message as it comes out of the machine, time stamp it and hand it to the page. Most of these paging messages originate at the main telephone switchboard as a result of incoming telephone calls for guests. Any of the stations, however, may originate a message, the message being recorded at all stations simultaneously from wherever it may originate.

In addition to the paging station, all such messages are recorded on telautographs at the tube center and from there the copy is forwarded via pneumatic tube to the guest's room.

The Tapestry Gallery station pages all parts of the First Mezzanine floor, excepting the Main Dining room, where pages are not permitted to call names. Reaching guests and patrons in this room, however, is made easy for those who care to make their presence known by means of a "location card." A silver stand on each table in the Dining-room carries an attractively printed suggestion as to the use of this card, which is available on request to the waiter. This card, on which the guest's name and table number are written, is then forwarded to the attendant at the paging station, where it is filed in an index for ready reference in case of a call for the guest, who can thus be quickly reached without calling the name aloud in the room.

Loyalty

ON Sunday evening, November 9, shortly after 9 o'clock, fire was discovered in the Grandin Feed Mills, which are located in the heart of the manufacturing district at Jamestown, N. Y. Owing to the highly inflammable nature of the grain stored in the mills, the fire spread with alarming rapidity. The flames shot at least thirty feet into the air, seriously threatening the surrounding buildings.

The location of the fire and the spectacular size of the flames caused an overwhelming increase in telephone traffic, over 1,200 "Curiosity Calls" being handled.

The operators on duty were Misses Harriet Stearns, Mary Murray, Stasia Phillips and Sarah Scott.

A few minutes after the alarm, Miss Mabel Pearson, Chief Operator, and Mrs. Ara Livingston, a supervisor, who had finished their day's work and had returned to their homes, voluntarily came to the Central Office and assisted the regular night force in handling the traffic. Their loyalty in coming to the office when they thought that their services might be needed is worthy of the highest commendation.

Due to the excellent work of the regular night force and the added efforts of the operators who voluntarily rendered assistance, the greatly increased traffic was handled without a complaint.

Digitized by Google

The Magnet

Suggested by H. Howland, Flatbush Commercial

IN sending the above suggestion for a title for this department of our magazine, Mr. Howland writes:

"I would call the department 'The Magnet,' for the reason that all employees are drawn to it."

We hope that this is so, and may its magnetic power increase, not only to draw readers but also contributors to it.

There are hundreds of things occurring every day that could be told briefly in this department and add tremendously to the interest of the work of every one.

The following letter from Buffalo is a splendid example of the magnetic power of the magazine, which, as we have so often said, is due so largely to our contributors:

"At the last meeting of our Maintenance Club much was said to create enthusiasm in our members to write something for THE TELEPHONE REVIEW, no matter how little, the main object being to put Buffalo on the map and let the other Divisions know that we are on the job and not merely existing. To be sure, we cannot all be a Wally Schang, the man who did so much to put Buffalo on the map of the baseball world, but with a little careful thought and effort each of us ought to be able to contribute something.

"Even those of us who more by fate than mere choice work nights have our opportunities.

"No doubt there are many readers to whom it has never occurred that there was such a thing as a Night Force. To them I wish to say they have missed much, and the pleasure of interfering with Nature's laws is all our own.

"Yours while Buffalo sleeps,

(Signed) "W. O. SCHNITZER,
"Night Wire Chief."

"Yours while Buffalo sleeps!" The Advertising Department never hit upon a happier phrase, and should feel a debt of gratitude to Mr. Schnitzer for coining it for them. "Buffalo Sleeps," but the Bell System never sleeps!

His whole letter is an inspiration, and should wake up others to put their cities and towns and villages and hamlets on the map, too.

Telephone Aids Musical Composer

A prominent writer of popular songs in New York had just completed a new composition and was anxious to have one of his friends, who is an excellent judge of music, criticise it. As his friend lived some distance away, and being desirous of sending the manuscript to his publisher as soon as possible, the composer pondered a moment and exclaimed: "The telephone!"

Suiting the action to the word, he called up his friend and explained what he proposed to do. Then he requested his pianist to play the accompaniment while he sang the song into the telephone. After a few changes had been made the critic finally gave his approval, and the receivers were hung up.—C. S. LUNZ, Madison Square Commercial.

Sanitary (?) Plumber

While at the Information Desk the other evening, a lady called and asked for a plumber located on Monument Square. I asked her if the name was Wills, and she replied: "I don't know whether that's the name or not, but this is the way he spells it, 'S-a-n-i-t-a-r-y.'"—(Miss) A. M. O'DONNELL, Troy Exchange.

"Practice What We Preach"

Get together, boys, practice what we preach in telephone courtesy; use the telephone to help you get a contract and the voice with the smile will win. —L. S. HINMAN, Salesman, Main Commercial.

A Practical "Information" Operator

A subscriber in Saugerties repeatedly called a number and invariably received the reply, "Don't answer," although he insisted that it was a business place and there was no reason why some one should not be in.

When we received the trouble reports for that day, however, the explanation was made clear, for on the slip the operator had written, "Today the paper said they would be closed—all gone on a clam bake."—R. W. FREER, Record Clerk, Kingston.

Wanted Something for Nothing

Two women entered our commercial office and one stepped into a telephone booth. She was apparently unused to the telephone, for in a very loud voice she asked for a high official of the town by name and title. The Information operator supplied the necessary number, whereupon the lady was requested to deposit five cents. Dropping the receiver, she left the booth. Her friend inquired if she had talked with the man. "No!" she replied, "they have him on the line but want me to drop in a nickel to talk to him," and out they went.—R. C. DAWE, Salesman, Knigston.

Glens Falls Cut Over

Glens Falls, N. Y., "cut out" the old and "cut in" a new exchange at 10.21 o'clock on the night of Saturday, November 22. The "cut over" required less than sixty seconds, and was accomplished without a hitch. The new exchange is located on the top floor of the Glens Falls Insurance Company's building.

Telephone Saves Embarrassment

Not long ago, in a motion-picture theatre, the hero of the photo-play that was being shown could not summon enough courage to ask the stern father for the hand of his daughter. While he was making some very awkward attempts to ask for the father's consent, a gentleman in the audience remarked to his companion, "He is away behind the times; why doesn't he telephone? It would be much easier."

A young man sitting near by turned to the speaker and said quite eagerly: "That's so, too,—telephone," and left the theatre. I am still curious to know if the young man that left the theatre so abruptly went to the nearest telephone to put the idea into practice,—and with what result.

A patron at a coin-box wanted to know if he could have six local calls for a quarter. When it was explained to him that it could not be done, he said, "I thought you could make it cheaper on six calls."—(Miss) T. SPRING, Desk Supervisor, Schenectady.

"Deef and Dumb"

An Italian patron came into the Commercial Office, wishing to report his telephone, and shrugging his shoulders, said, "I dunno, I dunno. My telephone she be deef and dumb."

A relative visiting at my home was complaining of the long walk she had to take to see a friend. Little Donald, aged three, spoke up and said, "Why don't you talk frue the telephone? We allas does."—"A TONAWANDA OPERATOR."

Digitized by Google

Bread-Box Telephone's Guardian

A subscriber called our Greenwich, Conn., Commercial office relative to a toll dispute. The regular information, viz., number, name and address of the call in question, was given her, but subscriber still disputed the call. She was asked if anyone else had access to the telephone, to which she replied emphatically "No," stating that when she was at home she kept the instrument under the kitchen table and when going out she "locked it in the bread-box."—(Miss) M. L. NOUD, Cashier, Greenwich, Conn., Commercial.

Couldn't Do Without It

While I was busy preparing new contracts, the telephone bell rang and I answered "Telephone Company, Commercial Department." An excited man's voice at the other end of the wire replied: "Hello! hello! send a man here immediately." Upon further inquiry it developed that he cancelled his contract a month or so ago and could not get along without his telephone. After calming down he said, "I had my telephone cancelled, as I thought I could get along without it, but since then I have been inconvenienced far beyond the cost of the telephone rental. It is the hardest thing to try to get along without it, and I want service as soon as you possibly can connect it up." We secured his signature to a new contract that same day. This shows the value of the telephone, and no house should try to do without it.—WILLIAM B. KANOFF, Nyack Commercial.

Typical Co-operation

On November 12, the Boston Store Company, Schenectady, signed a contract for 3 trunks, a 40-drop switchboard and 18 extension stations, and because of the approach of the holiday season requested that we make a special effort to install the service quickly.

The Plant Department readily co-operated, and despite the fact that it was necessary to get the equipment from New York, the installation was O. K.'d at 4.40 P. M. on November 24.

This is the kind of work that pays and is typical of the co-operation that exists between departments in Schenectady.—F. M. COZZENS, Local Manager, Schenectady.

A "Particle"

A maid in the home of a Leonia subscriber when calling a party line number invariably uses the word "particle" for "party," for example, "Leonia 345-particle J." We know she is colored.—"Englewood Operator."

Our Operators as Medical Advisers

Recently, Miss M. Gleig, a Branch Brook operator, answered a Belleville subscriber who called in a very excited tone for Branch Brook 54. After completing the connection Miss Gleig referred the case to her supervisor, Miss N. Schwarz.

A few seconds later the subscriber flashed in again and said: "That doctor is not at home. Can you connect me with another?"

Miss Schwarz tried several other doctors, but none of them was at home, so she asked the subscriber if she could help her in any way. The subscriber answered: "My baby has a convulsion, can you tell me what to do?" Miss Schwarz told her to give the child a hot mustard bath and promised to continue efforts to get a doctor.

A little later the subscriber called again to thank the young lady who had helped to save her baby's life. The doctor had just arrived and his directions coincided with those Miss Schwarz had given.

Miss A. Taylor, another Branch Brook operator, referred to her supervisor, Miss M. Byrne, a boy who called and asked what would cure a toothache. His sister was suffering from one and they were at home alone.

Miss Byrne had no opportunity to demonstrate her ability as a dentist, however, because just then the children's father arrived at home and expressing his thanks, informed her that he would attend to the case.—(Miss) M. DENNEY, Chief Operator, Branch Brook (Newark).

"For the love of Mike, Mutt, be reasonable."—Designed and executed by A Splicer's Helper, 24 Walker St.

A Busy Day in Amsterdam

On Tuesday night, October 28, Ali Rajah, a noted Egyptian mystifier, appearing at a local theatre in a modern psychic exhibition of second sight and mental telepathy, announced from the stage that the following morning, between the hours of 11 and 12, he would identify names over the telephone with the aid of his magic vision and also answer any questions asked. I happened to be at the performance and heard the announcement. I knew it would mean a rush for us, so I prepared. It started at 10:50 A. M., and call after call was made for Lyceum 481, with the result that 137 busy tickets were written in one hour, and many more calls, I fear, were not written. As one after the other was connected with the Rajah and he answered their eager questions, they would then call their friends and so the rush kept up until two o'clock, time for the afternoon performance.

Questions in regard as to whom one's future husband would be, success or failure in business, etc., were answered, evidently to the satisfaction of inquiring parties, as some were so pleased with their future as predicted by the Rajah that they called us and thanked us for our service.—(Miss) BERTHA S. VOUGHT, Chief Operator, Amsterdam, N. Y.

Not a Spook

While the following request may not rightfully be classed as unreasonable, it certainly possesses the element of humor.

On the night of November 1, while the wind was blowing at sixty miles or more and the witching hour of midnight was approaching, a subscriber in an outlying district of Buffalo called in and reported that there was a tap-tap-tapping at his window which banished sleep and made the night more hideous. Fearlessly he had investigated the cause and found that it was the telephone wire. "Please send a man immediately to fix it," he demanded.—WILLIAM O. SCHNITZER, Buffalo Night Wire Chief.

"Letter, Please"

A Spring Valley operator who was about to give a busy report asked, "What is your letter, please?" The party was silent a moment and then he said, "My first initial is H, but what has that to do with this call?" The operator then explained that it was the letter of his telephone she wanted and not his initial.—(Miss) LILLIAN ENO, Spring Valley Operator.

Digitized by Google

Opportunity?

Sure, lots of it. Instead of the proverbial knock at the door, the latter threatens to become unhinged entirely. "Prove it," you say. All right.

In the brief history of the Commercial Department, less than four years, the names of no less than seven men come to mind who have been graduated, at the Murray Hill Office alone, from the ranks to positions of greater responsibility in other Departments or other Companies in the Bell System. Among these are one District Manager, two Local Managers and one Publicity Manager. The answer is the Company needs men who have proved out and can do things.

Think it over, you who feel you are in a rut and that there is nothing better in store for you. Maybe the fault is your own. Take a fresh start, be cheerful, industrious and thorough; forget the clock and lay in a fresh supply of enthusiasm. Keep your eye on the job of the fellow just ahead of you and assure yourself of your ability to fill it should you be called upon unexpectedly to do so. Strive to excel in your particular employment, resolve to be the best employee in your class in the whole Division, and you need have no anxiety about your future.—J. H. M. FITZGERALD, Supervisor, Murray Hill Commercial.

He Is Still Wondering

Recently, while the Foley Chemical Factory line was being supervised for a steady signal, a dog was heard whining very piteously over the wire. Repeated attempts to attract the attention of someone at the place were of no avail, and fearing that something might be wrong, we immediately called the nearest public telephone station and requested the agent to send someone to the factory to investigate.

It happened that Mr. Foley was with the agent, and after listening to the circumstances, he hastened over to the factory. A little later he called and explained that his watchdog had broken loose, and gone into the office where, in running around in an effort to escape, he had knocked down the telephone. In thanking us for notifying him, Mr. Foley said: "I don't understand how you knew where to locate me. While I always knew the telephone to be a wonderful invention, this is the first instance brought to my knowledge of where it has been able to locate people not at home."—(Miss) S. M. C. HENRY, Supervisor, Market (Newark).

Money Cannot Be Transmitted By Telephone—Use the Telegraph

A few days ago I was asked by one of our operators how money could be sent by telephone. I replied that we had not as yet reached this stage of development, and the operator explained that a gentleman had just called from a coin box public telephone and asked her what the method of procedure was. She, of course, assumed that he had matters slightly confused and, therefore, questioned him, suggesting that he probably meant sending money by telegraph.

He still held to his first statement and added that he knew money could be sent by telephone as a neighbor had advised him to this effect. I then became interested and asked the operator to ascertain from him, if possible, the neighbor's name in order that we might look into the matter. After obtaining the name from "Central," I called the alleged informant who declared that it must have been a false alarm, as he knew very little concerning either telephone or telegraph business and did not think he could be accused of giving out such good news.

Both the operator and myself were sorry that we were unable to assist the gentleman, but we may have the pleasure of furnishing this information some day.—(Miss) MARY E. BRITT, Stenographer, Nyack.

Shoes To Be Workmanshipped

A shoemaker opening a shop in Copiague distributed on Tuesday circulars of which the following is a conscientious copy:

Notice
Mr. Carmine Barbato
has opened a on up to date shoes - maker Store in
Copiague, Long Island
which the said proprietor will satisfy every customer giving a good
service.
Repairing neatly done,
also Costumer work a specialties.
—*Local Newspaper.*

He also asked us to put in a telephone for him, the "droppa da nick" kind. "You keepa da key," he said; "me honest man. You unlocka da box, you taka da half, giva me da half." He was surprised that we did not at once accept his offer, and suggested that we consider it for a few days.—C. A. RYDER, Local Com'l Mgr., Freeport, L. I.

New Theatre for Mt. Vernon

The Proctor Building, Mt. Vernon, the first and only Proctor Theatre in Westchester County, with a seating capacity of 2,200, is a five-story office and theatre building covering an entire block. Arrangements have been made for automatic booth service in the theatre lobby, and also for service in the ticket office, etc. The outlook for further telephone development throughout the building is very promising.—L. J. FELLMETH, Salesman, Mt. Vernon.

"Party-Line Cordiality," or "The Farmers' Mutual Touch"

It was my great pleasure to spend my vacation in Maine, and there become acquainted with the many-party-line system. At the farm house where I stayed we were one of eighteen on a party line—an unusually large number. The Company, wishing to adjust matters, suggested the re-distribution of the line.

The suggestion met with approval, but no one wanted to be taken from the line because of the subsequent loss of friendship.

These party lines become the centers of interest and a spirit of cordiality is displayed among the subscribers. At least that was my impression, for the greater part of our social engagements were with the subscribers on that party line, and the invitations were given with the full spirit of kindliness of old acquaintance.

If the telephone is a necessity to the city man, its usefulness is doubly impressed upon one when he visits the country. We then realize the loneliness of the average farmer's wife, miles away from any habitation, and conjecture what she would do without it—speaking only from a social aspect, and not dealing with it from a commercial point of view.

After an evening's engagement, the first morning call is usually a kindly inquiry if all got home safely, which is no idle question, for the hills are steep and often the nights are dark, while over-arching trees make the roadway as black as pitch. At such times the horses are barely discernible, and they have to be led down the steepest stretches.

The telephone in the rural sections impresses one as the nerve center. Many a long drive is avoided, and something forgotten when a trip is made can be arranged for by a call to the village store and a request for the messenger to call his home on his arrival there.—GEO. H. SPROSTON, Public Telephone Dept., Manhattan.

Digitized by Google

Bread-Box Telephone's Guardian

A subscriber called our Greenwich, Conn., Commercial office relative to a toll dispute. The regular information, viz., number, name and address of the call in question, was given her, but subscriber still disputed the call. She was asked if anyone else had access to the telephone, to which she replied emphatically "No," stating that when she was at home she kept the instrument under the kitchen table and when going out she "locked it in the bread-box." — (Miss) M. L. Noud, Cashier, Greenwich, Conn., Commercial.

Couldn't Do Without It

While I was busy preparing new contracts, the telephone bell rang and I answered "Telephone Company, Commercial Department." An excited man's voice at the other end of the wire replied: "Hello! hello! send a man here immediately." Upon further inquiry it developed that he cancelled his contract a month or so ago and could not get along without his telephone. After calming down he said, "I had my telephone cancelled, as I thought I could get along without it, but since then I have been inconvenienced far beyond the cost of the telephone rental. It is the hardest thing to try to get along without it, and I want service as soon as you possibly can connect it up." We secured his signature to a new contract that same day. This shows the value of the telephone, and no house should try to do without it.—William B. Kanoff, Nyack Commercial.

Typical Co-operation

On November 12, the Boston Store Company, Schenectady, signed a contract for 3 trunks, a 40-drop switchboard and 18 extension stations, and because of the approach of the holiday season requested that we make a special effort to install the service quickly.

The Plant Department readily co-operated, and despite the fact that it was necessary to get the equipment from New York, the installation was O. K.'d at 4.40 P. M. on November 24.

This is the kind of work that pays and is typical of the co-operation that exists between departments in Schenectady.—F. M. Cozzens, Local Manager, Schenectady.

A "Particle"

A maid in the home of a Leonia subscriber when calling a party line number invariably uses the word "particle" for "party," for example, "Leonia 345-particle J." We know she is colored.—"Englewood Operator."

Our Operators as Medical Advisers

Recently, Miss M. Gleig, a Branch Brook operator, answered a Belleville subscriber who called in a very excited tone for Branch Brook 54. After completing the connection Miss Gleig referred the case to her supervisor, Miss N. Schwarz.

A few seconds later the subscriber flashed in again and said: "That doctor is not at home. Can you connect me with another?"

Miss Schwarz tried several other doctors, but none of them was at home, so she asked the subscriber if she could help her in any way. The subscriber answered: "My baby has a convulsion, can you tell me what to do?" Miss Schwarz told her to give the child a hot mustard bath and promised to continue efforts to get a doctor.

A little later the subscriber called again to thank the young lady who had helped to save her baby's life. The doctor had just arrived and his directions coincided with those Miss Schwarz had given.

Miss A. Taylor, another Branch Brook operator, referred to her supervisor, Miss M. Byrne, a boy who called and asked what would cure a toothache. His sister was suffering from one and they were at home alone.

Miss Byrne had no opportunity to demonstrate her ability as a dentist, however, because just then the children's father arrived at home and expressing his thanks, informed her that he would attend to the case.—(Miss) M. Denney, Chief Operator, Branch Brook (Newark).

"For the love of Mike, Mutt, be reasonable."—Designed and executed by A Splicer's Helper, 24 Walker St.

A Busy Day in Amsterdam

On Tuesday night, October 28, Ali Rajah, a noted Egyptian mystifier, appearing at a local theatre in a modern psychic exhibition of second sight and mental telepathy, announced from the stage that the following morning, between the hours of 11 and 12, he would identify names over the telephone with the aid of his magic vision and also answer any questions asked. I happened to be at the performance and heard the announcement. I knew it would mean a rush for us, so I prepared. It started at 10:50 A. M., and call after call was made for Lyceum 481, with the result that 137 busy tickets were written in one hour, and many more calls, I fear, were not written. As one after the other was connected with the Rajah and he answered their eager questions, they would then call their friends and so the rush kept up until two o'clock, time for the afternoon performance.

Questions in regard as to whom one's future husband would be, success or failure in business, etc., were answered, evidently to the satisfaction of inquiring parties, as some were so pleased with their future as predicted by the Rajah that they called us and thanked us for our service.—(Miss) Bertha S. Vought, Chief Operator, Amsterdam, N. Y.

Not a Spook

While the following request may not rightfully be classed as unreasonable, it certainly possesses the element of humor.

On the night of November 1, while the wind was blowing at sixty miles or more and the witching hour of midnight was approaching, a subscriber in an outlying district of Buffalo called in and reported that there was a tap-tap-tapping at his window which banished sleep and made the night more hideous. Fearlessly he had investigated the cause and found that it was the telephone wire. "Please send a man immediately to fix it," he demanded. — William O. Schnitzer, Buffalo Night Wire Chief.

"Letter, Please"

A Spring Valley operator who was about to give a busy report asked, "What is your letter, please?" The party was silent a moment and then he said, "My first initial is H, but what has that to do with this call?" The operator then explained that it was the letter of his telephone she wanted and not his initial.—(Miss) Lillian Eno, Spring Valley Operator.

Digitized by Google

Opportunity?

Sure, lots of it. Instead of the proverbial knock at the door, the latter threatens to become unhinged entirely. "Prove it," you say. All right.

In the brief history of the Commercial Department, less than four years, the names of no less than seven men come to mind who have been graduated, at the Murray Hill Office alone, from the ranks to positions of greater responsibility in other Departments or other Companies in the Bell System. Among these are one District Manager, two Local Managers and one Publicity Manager. The answer is the Company needs men who have proved out and can do things.

Think it over, you who feel you are in a rut and that there is nothing better in store for you. Maybe the fault is your own. Take a fresh start, be cheerful, industrious and thorough; forget the clock and lay in a fresh supply of enthusiasm. Keep your eye on the job of the fellow just ahead of you and assure yourself of your ability to fill it should you be called upon unexpectedly to do so. Strive to excel in your particular employment, resolve to be the best employee in your class in the whole Division, and you need have no anxiety about your future.—J. H. M. FITZGERALD, Supervisor, Murray Hill Commercial.

He Is Still Wondering

Recently, while the Foley Chemical Factory line was being supervised for a steady signal, a dog was heard whining very piteously over the wire. Repeated attempts to attract the attention of someone at the place were of no avail, and fearing that something might be wrong, we immediately called the nearest public telephone station and requested the agent to send someone to the factory to investigate.

It happened that Mr. Foley was with the agent, and after listening to the circumstances, he hastened over to the factory. A little later he called and explained that his watchdog had broken loose, and gone into the office where, in running around in an effort to escape, he had knocked down the telephone. In thanking us for notifying him, Mr. Foley said: "I don't understand how you knew where to locate me. While I always knew the telephone to be a wonderful invention, this is the first instance brought to my knowledge of where it has been able to locate people not at home."—(Miss) S. M. C. HENRY, Supervisor, Market (Newark).

Money Cannot Be Transmitted By Telephone—Use the Telegraph

A few days ago I was asked by one of our operators how money could be sent by telephone. I replied that we had not as yet reached this stage of development, and the operator explained that a gentleman had just called from a coin box public telephone and asked her what the method of procedure was. She, of course, assumed that he had matters slightly confused and, therefore, questioned him, suggesting that he probably meant sending money by telegraph.

He still held to his first statement and added that he knew money could be sent by telephone as a neighbor had advised him to this effect. I then became interested and asked the operator to ascertain from him, if possible, the neighbor's name in order that we might look into the matter. After obtaining the name from "Central," I called the alleged informant who declared that it must have been a false alarm, as he knew very little concerning either telephone or telegraph business and did not think he could be accused of giving out such good news.

Both the operator and myself were sorry that we were unable to assist the gentleman, but we may have the pleasure of furnishing this information some day.—(Miss) MARY E. BRITT, Stenographer, Nyack.

Shoes To Be Workmanshipped

A shoemaker opening a shop in Copiague distributed on Tuesday circulars of which the following is a conscientious copy:

Notice
Mr. Carmine Barbato
has opened a on up to date shoes - maker Store in
Copiague, Long Island
which the said proprietor will satisfy every customer giving a good
service.
Repairing neatly done,
also Costumer work a specialties.
—*Local Newspaper.*

He also asked us to put in a telephone for him, the "droppa da nick" kind. "You keepa da key," he said; "me honest man. You unlocka da box, you taka da half, giva me da half." He was surprised that we did not at once accept his offer, and suggested that we consider it for a few days.—C. A. RYDER, Local Com'l Mgr., Freeport, L. I.

New Theatre for Mt. Vernon

The Proctor Building, Mt. Vernon, the first and only Proctor Theatre in Westchester County, with a seating capacity of 2,200, is a five-story office and theatre building covering an entire block. Arrangements have been made for automatic booth service in the theatre lobby, and also for service in the ticket office, etc. The outlook for further telephone development throughout the building is very promising.—L. J. FELLMETH, Salesman, Mt. Vernon.

"Party-Line Cordiality," or "The Farmers' Mutual Touch"

It was my great pleasure to spend my vacation in Maine, and there become acquainted with the many-party-line system. At the farm house where I stayed we were one of eighteen on a party line—an unusually large number. The Company, wishing to adjust matters, suggested the re-distribution of the line.

The suggestion met with approval, but no one wanted to be taken from the line because of the subsequent loss of friendship.

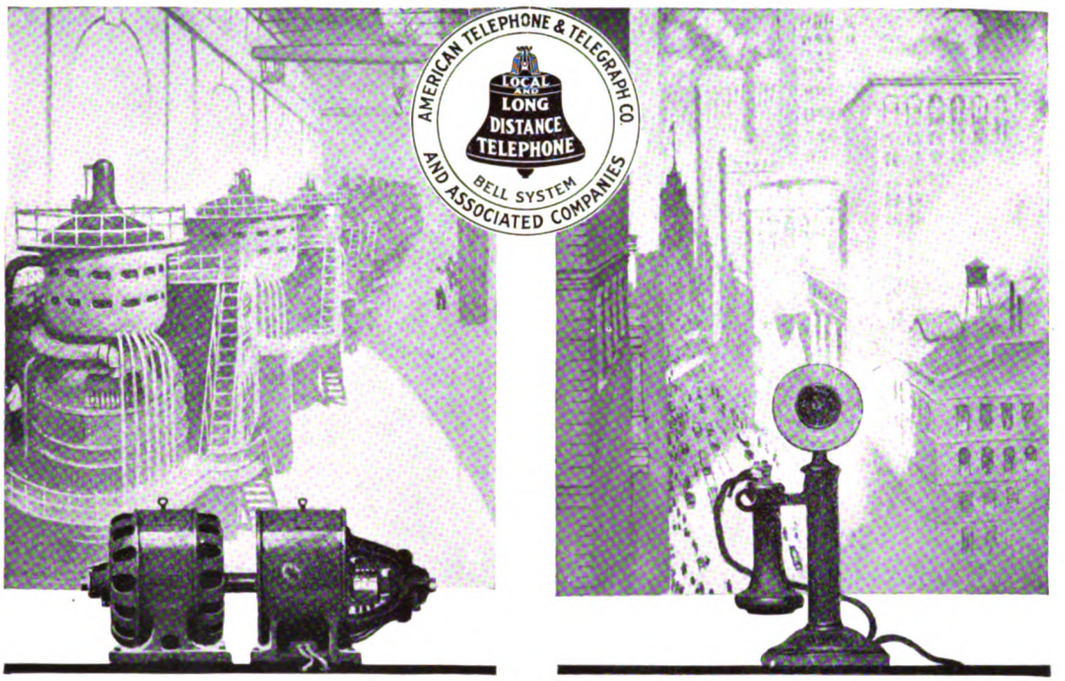
These party lines become the centers of interest and a spirit of cordiality is displayed among the subscribers. At least that was my impression, for the greater part of our social engagements were with the subscribers on that party line, and the invitations were given with the full spirit of kindliness of old acquaintance.

If the telephone is a necessity to the city man, its usefulness is doubly impressed upon one when he visits the country. We then realize the loneliness of the average farmer's wife, miles away from any habitation, and conjecture what she would do without it—speaking only from a social aspect, and not dealing with it from a commercial point of view.

After an evening's engagement, the first morning call is usually a kindly inquiry if all got home safely, which is no idle question, for the hills are steep and often the nights are dark, while over-arching trees make the roadway as black as pitch. At such times the horses are barely discernible, and they have to be led down the steepest stretches.

The telephone in the rural sections impresses one as the nerve center. Many a long drive is avoided, and something forgotten when a trip is made can be arranged for by a call to the village store and a request for the messenger to call his home on his arrival there.—GEO. H. SPROSTON, Public Telephone Dept., Manhattan.

Digitized by Google



The Energizer of Business

IN a metropolitan power-house there must be generators large enough to furnish millions of lights and provide electrical current for thousands of cars and factories.

Each monster machine with the power of tens of thousands of horses is energized by an unobtrusive little dynamo, which is technically known as an "exciter."

This exciter by its electric impulse through all the coils of the generator brings the whole mechanism into life and activity.

A similar service is performed for the great agencies of business and industry by the telephones of the Bell System. They carry the currents of communication everywhere to energize our intricate social and business mechanism.

United for universal service, Bell Telephones give maximum efficiency to the big generators of production and commerce.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***

Digitized by Google

IF business and distance combine to keep you away from the family gathering at Christmas time, why not *take your place in the family circle by Telephone?* *Send your voice* and make Christmas Day brighter and happier for all because of your thoughtfulness.

NEW YORK TELEPHONE CO.

Digitized by Google

THE TELEPHONE REVIEW INDEX

VOLUMES 1, 2, 3, 4 NEW YORK, JANUARY, 1914 INDEX

INDEX TO VOLUMES 1, 2, 3 AND 4

The references in the following index are to Volumes 1, 2, 3 and 4 of THE TELEPHONE REVIEW and to the number and page designated. Articles marked with * are illustrated.

A

	Vol.	No.	Page
Access,			
Telephone Secures (Ed.)	4	4	94
Accident,			
At Canandaigua, by Will H. Smith	3	3	66
And How to Avoid Them	4	11	319
Accountants',			
Theories and Talks Club	2	2	41
***Accounting Department,**			
Albany, New Quarters for	2	6	152
Plans and Aims of the (Paper read before The Telephone Society of New York, June 20, 1911), by P. O. Coffin	2	7	161
The, by Walter Brown	3	1	3
The, by J. S. Wiley. A Discussion of Some Possibilities (Paper read at meeting of N. Y. Tel. Society, Nov. 25, 1911)	3	1	25
Accounting,			
Hudson, Central & Western Divisions, by A. W. Deas	4	1	25
Metropolitan Division, by E. C. Michell	4	1	25
Picnic, Metropolitan, by W. J. Creamer	4	7	199
Ackles, H. J.,			
Experiences of a Local Manager in Delivering Directories	3	5	122
Acknowledging Operator's Repetition,			
by J. L. Turner	4	9	256
Act of Congress,			
To Regulate Commerce	1	4	75
Act to Regulate Commerce,			
As Amended, 1910, How Telephone Companies Engaged in Interstate Business are Affected by the	1	6	157
***Address of U. N. Bethell,**			
On The Greater New York Telephone Co., given at New York Tel. Society Meeting, N. Y. City, Nov. 15, 1910	1	6	132
Addition to Building,			
At Orange, N. J.	2	10–11	255
Adequate Telephone Facilities,			
Bring Business	1	4	96
Adreance, Miss H.,			
Another Feat of "The Finder of Men"	4	4	120
Advantages of Shopping by Telephone,			
(Ed.)	3	9	201
Advertising Literature,			
New, (Ed.)	3	4	91
Advertising Contest	4	3	65
	4	4	93
	4	5	125
	4	6	150
	4	7	179
	4	8	206
(Ed.)	4	4	93
***Advertising,**			
The Telephone, by John Lee, Traffic Manager Telephones, General P. O., London	2	8	198
***Advertising,**			
Clubs Hold Joint Sessions by Bell Telephone, Buffalo and Rochester	2	3	63
Ideas Wanted, Prize Contest (Ed.)	4	3	65
Selling Telephone Directory	4	1	26
Manager's Desk (Division)—Campaign for Business from	1	1	19
	1	3	67
	1	4	88
Manager for the Chesapeake & Potomac Tel. Co., J. H. E. Boisseau	3	9	208
Clubs of America, Associated	4	6	167
Advertisement,			
What do You Think Would Make a Good Telephone (Ed.)	3	4	91
Aerial Cable,			
Distributing Plant in a small Suburban Community, by S. D. Crane	1	4	90
***Aerial Construction,**			
In Manhattan, Some, by Steven B. Goodloe	4	9	241
Agents,			
Counter, by E. Eastment	2	10–11	254
Air,			
Dr. Alvah H. Doty (Ed.)	4	3	65
By Dr. Alvah H. Doty	4	3	84
Albrechtson, C. R.,			
*Moving a Fire House of the N. Y. Fire Dept.	4	3	86
Allen, G. C.	3	1	15
Allen, L. M.,			
*Metropolitan Night Force, The	4	12	340
***Albany,**			
High School Science Club Visits Main Central Office	4	11	317
*The Capitol Fire At, by John E. Boisseau	2	4	82
High School, Series of Lectures in the	4	4	116
Hotel Cut-Over to Bell Service, by Stuart H. Brown	3	4	100
*Main to West "Cut-over," by J. P. Cozine	2	12	273
New State Educational Building, Telephone Equipment in	2	12	270
*The New Operators' Rooms in, by R. S. Williams	2	12	272
*And Troy, New Telephone Buildings in	4	8	221
Telephone Development in, by W. B. Eddy	2	10–11	247
*N. Y. Exchange, The Early History of, by Henry W. Pope	2	2	34
Operator, Reminiscences of an, by Wm. J. White	4	10	275
Albion, N. Y.	1	7	180
	3	3	79
Aldridge, A. F.,			
Marine News Reporting	3	9	206
Alert and Loyal Operators	3	8	182
***Allegany,**			
County Tel. Co	4	10	267
County Telephone Company, Formation of the, A History of the Growth of the Bell System in Wellsville and Vicinity.	3	7	156
Allen, A. W.,			
*The Use of Power Trucks in Building and Maintaining Telephone Plant	3	4	82
Always in a Hurry,			
(Poem), by S. W. Gaylord	1	5	127
America and Great Britain,			
Telephonically Compared, by H. Bell	1	4	80
***Among the Divisions**	2	3	65
Amsterdam, N. Y	2	7	184
***Amsterdam,**			
By A. J. Campbell and Miss B. S. Vought	4	10	264
Ancestors,			
Had Had Telephones, If Our	4	8	213
***Anecdotes and Incidents,**			
By H. Bell	2	10–11	250
Anderson, E. G.,			
Telephone Romance	2	6	160
Traffic Department of Hudson Division	4	1	17
Andrews, B. B.,			
*Jamaica, L. I.	4	7	182
Analyzing a Trouble Complaint,			
By M. A. Cooke	4	5	141
Annual Convention,			
Of Contract and Commercial Men	1	3	71
***Annual Dinner,**			
Of the New Jersey Division Employees, First	2	4	101
Of Manhattan-Bronx Commercial Department, First	1	7	176
Annual Reports,			
Of the American Tel. & Tel. Co., Year 1910.	2	3	71

Digitized by Google

	Vol.	No.	Page
Year 1911, Excerpts from Report	3	4	81
(Ed.)	3	5	115
Year 1912, Excerpts from Report	4	4	110
(Ed.)	4	4	93
Answer,			
At the Telephone, The	2	8	201
Answering,			
Back the Operator (Ed.)	4	9	233
Applegate, W. C.,			
*The North Jersey Shore	4	12	323
Aqueduct,			
Telephone System of the Board of Water Supply of the City of New York Along the Line of the Catskill, by W. A. Bryant	2	12	259
Arland, F. L.,			
The Cut-Over and Consolidation at Hoosick Falls, N. Y.	3	3	74
Art of Expression,			
As Applied to the Work of the Telephone Operator, The, by J. L. Turner	2	10-11	236
***Asbury Park,**			
The Telephone at the Aviation Meet at, Aug. 10th to 20th	1	3	57
Asbury Park, N. J.	1	1	12
	1	2	42
And Its Telephone Development, by J. A. Waterbury	2	3	57
Associated Advertising,			
Clubs of America	4	6	167
***Association,**			
Of Railway Superintendents of Telegraph Meets	3	7	171
Railway Telephone Superintendents	4	7	179
***Associated Press,**			
And American Newspaper Publishers' Association Hear Mr. Taft Speak Over Long-Distance Telephone	3	5	112
***Astor Hotel,**			
N. Y., Second Annual Convention of the Telephone Pioneers of America Held at, Nov. 14-15, 1912	3	12	291
Astoria, L. I.	1	1	12
	1	6	156
	4	6	170
Athletic Club,			
New York Telephone	4	3	66
	4	4	123
	4	5	147
	4	6	176
	4	7	198
	4	8	230
	4	9	252
	4	10	273
	4	11	318
	4	12	339
N. Y. Tel. (Ed.)	4	3	66
Attention,			
The To-Be Successful Ones Attract (Ed.)	4	8	206
Atwater, H. G.,			
*The Dey Street Commercial Office	3	5	118
Auburn, N. Y.	2	6	159
Audubon,			
Central Office	1	3	70
District, N. Y. City	1	6	155
	2	5	131
Automatic Fallacy,			
The	2	7	173
***Automatic Pay Stations,**			
Collection of Revenue Therefrom Facilitated by the Use of an Automobile, by S. V. Gibson	1	7	166
***Auto Truck,**			
Unique	2	4	91
Automobile,			
And the Telephone, The	4	3	92
*Facilitates the Collection of Revenue from Pay Stations, by S. V. Gibson	1	7	166
Catastrophe Averted by Use of Telephone	2	6	160
Company of America on Telephone Courtesy	4	4	107
Automobile Shows,			
*Newark, N. J.	2	3	67
*Syracuse, N. Y., by H. M. Warne	2	5	126
*Troy, N. Y.	3	3	68
Auxiliary Batteries,			
Meeting an Emergency With, by H. McDougall	4	12	337
***Aviation Meet,**			
Held at Belmont Park, L. I., International	1	6	137
At Asbury Park, Aug. 10th to 20th, The Telephone at the	1	3	57
Axford, S. J.,			
*Bailing Water out of Pole Holes	4	10	275

B

	Vol.	No.	Page
***Babyhood of the Telephone,**			
The Birth and, by Thomas A. Watson	4	11	290
Babyhood and Birth,			
Of the Telephone, The (Ed.)	4	11	289
Bailey, L. E.,			
Heard the Same Sound Twice	3	1	18
Bailey, R. C.,			
*Fort Edward, N. Y.—High Water at the Door of the Central Office	4	6	173
***Bailing Water,**			
Out of Pole Holes, by S. J. Axford	4	10	275
Baker, W. F.	4	1	35
Commercial Department of New Jersey	4	1	12
***Ball,**			
N. Y. Produce Exchange Gives a Ball, by E. Rossman	2	7	179
Ball and Entertainment,			
Of New York Telephone Employees, Third Annual	4	11	318
Bangor (Me.) Fire,			
Lessons from	2	8	202
***Banner Displays,**			
By H. Bell	2	6	143
Barometer,			
The Infallible—The Telephone	4	9	234
Barre Center, N. Y.	3	3	79
Barry, W. G.	3	10	241
Baseball,			
Manhattan Baseball League	1	1	15
	3	4	99
	3	5	123
	*3	10	246
Engineering Dept. Game at Prospect Park	2	5	127
Engineering and Plant Accounting Depts.	2	8	208
Utica and Syracuse at New York Mills, N. Y.	2	8	208
Auditor and Accounting Depts. at New Dorp	2	7	181
*Newburgh & Poughkeepsie Plant and Commercial	2	8	208
Plant Engineers and Plant Dept.	3	7	174
Hackensack and Englewood	3	9	221
*Plant and Traffic Depts. at Crotona Park	4	6	175
Saratoga Springs and Schenectady	4	7	198
Englewood Baseball Team	4	7	199
	4	8	230
Deal by Telephone, Big	3	9	208
Basketball,			
Paterson District	3	2	47
Batavia, N. Y.	2	6	159
Bath Beach, L. I.	1	7	179
	2	9	232
Batteries,			
Meeting an Emergency with Auxiliary, by H. McDougall	4	12	337
Battleship by Telephone,			
Building a	4	6	166
Bayonne, N. J.	3	5	128
Fire, The, by F. B. Schroder	3	2	42
Bayshore, L. I.	3	3	78
Beaudouin, Harry,			
The Soliloquy of a Telephone	3	6	140
Dreams Go by Contraries (Poem)	3	4	90
Bedford,			
*Commercial District, Brooklyn, Telephone Development in, by C. E. Mapother	3	2	51
*Commercial Office, by C. E. Mapother	3	11	264
District, Brooklyn	4	10	285
Beebe, Geo. W.,			
Loyalty of Rahway Operators	4	8	226
***Beginning of Telephoning,**			
In New York City, by Herbert N. Casson	1	5	97
	1	6	129
	1	7	163
Behind the Little Telephone,			
(Ed.)	4	5	125
***Belasco, David,**			
Talking from New York to Chicago in "The Woman"	3	3	60

Digitized by Google

	Vol.	No.	Page
Bell, H.,			
Concerning Salesmanship	3	2	54
*Banner Displays	2	6	143
English Municipal Telephones	1	5	126
*Englewood, N. J.	4	10	266
A New Style Record of the Busies	4	12	344
*Anecdotes and Incidents	2	10–11	250
Bell,			
Organization, What It Has Done—For the Public—For the Employee (Ed.)	4	9	233
Seal, Significance of the	1	1	3
System and the Public, Mutual Relations and Interests of the, A Statement by Theo. N. Vail	4	9	242
Telephone Athletic Assoc. of New Jersey	4	4	121
	4	6	176
	4	8	230
	4	9	251
Telephone Athletic Club of Poughkeepsie	4	6	176
Bell, William,			
America and Great Britain Telephonically Compared	1	4	80
***Bell-Shaped Telephone Booth,**			
At Delmar Garden, St. Louis	1	3	60
Belleville, N. J.	4	8	218
***Belmont Park, L. I.,**			
International Aviation Meet Held at	1	6	137
Bennett, Arnold,			
Your United States, Extract from	3	7	170
Bentley, W. A.	4	1	36
Bergen News,			
Adopts a New Method of Securing Advertisements and Subscriptions	4	9	257
***"Berkshire,"**			
Of the Hudson Navigation Company, Telephone Equipment of the	4	6	166
***Berlin,**			
A Day With the Telephone People in, by James H. Collins	2	1	1
Bernard, Geo. H.,			
*Telephone Your Orders	2	5	129
Bernardsville, N. J.	2	8	206
Berry, Sadie E.,			
An Operator's Ideal (Poem)	2	5	118
Bethell, F. H.,			
*A Letter from Mr. F. H. Bethell	3	1	1
*The Return of	2	1	14
Address on Protecting the Service Before the Telephone Society of N. Y.	4	5	127
New York, Past and Present (Paper Read at Meeting of the Telephone Society of N. Y., March 18, 1913)	4	4	104
*Conservation and the Wire Service, Paper Read at Meeting of the Telephone Society of N. Y., Oct. 24, 1911	2	10–11	233
Bethell, U. N.			
*Letter from Mr. U. N. Bethell	3	1	13
*The Greater New York Telephone Co.	1	6	132
Cliff Dwellers Entertained by Telephone at Residence of	2	4	85
Bible Class,			
Calling Up (Ed.)	4	7	179
Bigler, E. W.			
*Newburgh	2	1	8
Some Interesting Reminiscences of a Telephone Pioneer	4	7	192
Biggsville and Kirkwood, Ill.,			
Telephone Service in	4	12	333
Bill,			
The Self-Receipting (Ed.)	4	5	126
Biltmore Hotel,			
Telephone Equipment of, by Wm. F. Reese	3	8	196
Binder			
For The Telephone Review	2	4	89
	3	1	8
Binghamton, N. Y.	1	2	43
By W. C. Sexsmith	4	9	250
Biography			
of the Telephone Told in Pictures	4	11	305
Birth and Babyhood of the Telephone,			
The (Ed.)	4	11	289
*The, by Thomas A. Watson	4	11	290
Birthday			
of The Telephone Review (Ed.)	2	6	146
***Blake, J. T.,**			
Telephone Maintenance in the New Jersey Division	1	3	65
Bloomfield, N. J.	3	7	175
Blue Bell			
"Glee Club"	2	6	144
	2	12	267
	4	1	39
Orchestra	3	12	286
***Board of Water Supply**			
of the City of New York Along the Line of the Catskill Aqueduct, Telephone System of the, by W. A. Bryant	2	12	259
Boat Race			
Reported by Telephone, Motor	1	4	78
*Was Handled, How a—Telephone and Telegraph Facilities Provided at Poughkeepsie for Inter-Collegiate Rowing Association	4	7	188
Boggs, R. H.			
*Some Points of Interest in Traffic Work	3	5	105
Traffic Department of L. I. Division	4	1	10
Boisseau, J. E.,			
Advertising Manager for the Chesapeake & Potomac Tel. Co.	3	9	208
*The Capitol Fire at Albany	2	4	82
Book,			
*The Most Useful in New York. From an Article by H. K. McCann, in *Advertising and Selling* for June	1	1	9
Telephone Display	2	12	279
Booster,			
Be a, by J. J. Malone	1	7	170
Boonton, N. J.	3	3	79
***Bootblack Stands,**			
Portable Telephones at	3	9	203
***Booth,**			
Telephone, at Delmar Garden, St. Louis, Bell-Shaped	1	3	60
*A Novel Telephone, by David Deering	2	4	85
Bound to Succeed	3	11	252
Bowling,			
N. Y. Tel. Bowling League at Buffalo, N. Y.	2	1	17
	2	2	41
	2	3	66
	2	10–11	255
	4	1	37
	4	4	124
Bowling Leagues at Buffalo and Rochester	3	1	23
	3	2	46
Metropolitan Bowling Tournament	2	10–11	254
	2	12	266
	4	6	175
Englewood and Hackensack	3	3	80
Commercial Bowling League Tournament, 1911-1912	2	7	181
Metropolitan Division Bowling League	2	9	228
	3	2	47
	3	12	286
	4	1	37
	4	4	123
L. I. Plant and Plant Accounting Depts.	2	5	128
Commercial Engineers and Engr. Assistants.	2	5	127
	3	3	80
Bowling Tournament at Rochester	4	5	147
Plant Accounting Bowling Match	2	2	41
N. Y. Tel. Co. and W. E. Co.	3	5	123
Brackenridge, J.,			
The Telephone Development of the Bronx	3	5	122
Bradley, D. V.,			
Window Display in Brockport, N. Y., Commercial Office	4	11	316
Bradt, Max Reid,			
*One of the Pioneers	4	7	187
Brant, L. N.,			
On Selling Telephone Service	3	2	54
Bretscher, K.,			
*Some Talk About Telephony in Spain	4	7	180
***Brick Industry,**			
The Telephone and, by D. H. McCann	3	12	295
Bridgehampton, L. I.	2	2	47
Brightwaters, L. I.	3	3	78
Brockport, N. Y.	3	3	79
Brooklyn, N. Y.	1	7	181
And Queens	3	9	223
	3	11	271
*Garage Outing, by W. Pray	4	10	274
*Of Yesterday and Today	3	5	120

Digitized by Google

	Vol.	No.	Page
Bronx, N. Y.	1	3	70
	3	7	175
The Telephone Development of the, by J. Brackenridge	3	5	122
Bronxville, N. Y.	2	5	132
Brown, Stuart H.,			
Albany Hotel Cut-Over to Bell Service	3	4	100
Brown, Walter	3	12	283
*Accounting Department, The	3	1	3
Bryant,			
Central Office, Manhattan	1	3	70
W. A., Telegraph Office Installed in White Plains Court House	3	8	198
W. A., Opening of New Exchange at Elmsford, N. Y.	2	6	156
*W. A., Telephone System of the Board of Water Supply of the City of New York Along the Line of the Catskill Aqueduct	2	12	259
Buehl, John,			
*Plaza-Lenox Exchange Districts	4	6	152
Buffalo, N. Y.	1	1	13
	1	2	43
	1	3	71
	1	4	92
	1	5	153
	1	7	181
	2	1	23
	2	2	46
	2	2	48
	2	6	157
	2	10–11	256
	3	9	224
	3	11	271
	4	3	88
Always Gets the Business, by H. C. Stephan	3	9	218
*And Rochester Advertising Clubs Hold Joint Sessions by Bell Telephone	2	3	63
*And Troy, Telephone Equipment of Publicity Trains of	1	1	10
Commercial Men's Dinner	2	1	17
*Commercial Office "Ring Up" Plan	2	5	122
*Harbor, Laying Submarine Cable in	4	7	191
*Hotel, Lafayette, New Switchboard at	1	7	173
*Hotel (Stadler) Installs 500 Telephone Stations	1	4	82
Night Force—Yesterday and Today, by J. Tabrah	4	12	341
Social and Efficiency Club Organized in	4	10	271
*Toll Board, The New, by F. L. Jackson	4	8	224
Trade Excursion—Annual Spring Trade Excursion of Buffalo Wholesale Merchants' Association Had Bell Service Throughout the Trip	4	7	195
December Business	2	1	19
Bull, E. N.,			
*Telephone and Telegraph Facilities Provided at Inter-Collegiate Rowing Association at Poughkeepsie, N. Y.	4	7	188
The Telephone Sermon	4	9	256
The Telephone and the Country Highway	2	5	118
***Building Operations**	4	5	139
Buildings, New Telephone,			
*Newark, N. J., by S. D. Crane	1	5	123
*Newark, N. J.	1	6	141
*Astoria, L. I.	2	5	126
*Salamanca, N. Y.	2	7	182
*Red Bank, N. J.	2	7	182
*N. Y. City-Walker-Lispenard	2	8	204
Buffalo, N. Y.,-Seneca	2	9	229
Nyack, N. Y., by A. S. Rossborough	2	10–11	241
*New Dorp, L. I.	3	1	24
*Hackensack, N. J.	3	3	77
Salamanca, N. Y., by G. J. Blanc	3	3	76
*Buffalo, N. Y.	3	6	140
*Buffalo, N. Y.	4	4	115
Kearny, N. J.	4	5	139
Buffalo, N. Y.,-Crescent	4	5	140
Rochester, N. Y.	4	7	202
*Troy, N. Y.	4	8	221
*Albany, N. Y.	4	8	221
***Bulletin Cabinets**	2	2	43
Bunyan, R. P.,			
Cable Burned Under Water	3	4	100
Underground Cable Between Albany and Troy, N. Y.	4	2	63
Burcher, R. H.,			
*A Brief Outline of Plant Engineering as It Affects the Commercial Department	2	4	92
Burglar,			
How the Telephone Captured a, by Miss Edith M. Gregg	4	12	344
Bush Terminal Co.,			
Telephone Equipment of the	4	8	220
Busies,			
A New Style Record of the, by H. Bell	4	12	344
***Business,**			
In the Western Division, The Business of Getting Big	2	12	257
Getter, The Telephone a, by Wm. B. Willits	3	3	71
Our (Ed.)	3	4	91
Transacted over the Telephone	2	6	150
Knowledge	2	4	89
Woman Who Succeeds by Telephone, A Real	3	12	287
Brought by Adequate Telephone Facilities	1	4	96
*Helpers, Two—Telephone and Travel	3	7	164
Butler, N. J.	3	10	244

C

Cable,			
*Between Tarrytown and Nyack, Interesting Facts About Laying a New Submarine, by R. F. Swayze	4	12	329
*Between Shelter Island and North Haven, Laying	3	8	194
Between Albany and Troy (N. Y.), Underground, by R. P. Bunyan	4	2	63
*Bouquet, A	3	9	203
At Jersey City Damaged by Fire	1	4	81
*Construction Gang at Paterson, N. J.	4	3	86
Burned Under Water, by R. P. Bunyan	3	4	100
Construction in Northern New Jersey, New	4	11	306
*Trouble, An Unusual, by A. H. Keteltas	4	12	331
*Work on Long Island, by A. Demuth	4	12	328
Caldwell, N. J.	2	5	132
Camden, N. Y.	4	11	308
***Campaign,**			
Tour of Pres. Taft Followed by W. U. Commercial Car, by F. O. Ludlow	3	7	173
*For Business from a Division Advertising Manager's Desk	1	1	19
	1	3	67
	1	4	88
Campbell, A. J.,			
*Amsterdam	4	10	264
***Canada,**			
A Glimpse of, by Wm. F. Shellworth	4	11	320
Canisteo, N. Y.	2	5	133
Canvass,			
Possibilities of Extension Station, by W. A. Grant	2	1	7
*For Service at Richmond Lighthouse, by L. M. Thomas	3	9	213
Canvassing,			
Difficulties, by Geo. W. Ross	3	12	301
From an Agent's Standpoint, by E. Eastment	2	6	159
Canvasser,			
Trials of a (Poem)	2	1	11
***Capital Fire**			
At Albany, The, by John E. Boisseau	2	4	82
Captured a Burglar,			
How the Telephone, by Miss Edith M. Gregg	4	12	344
Carpenter, H. C.,			
Engineering Department	4	1	27
Carroll, J. F., Jr.,			
Supplying Ringing Power Over 35 Miles of Trunk Line	3	3	66
Carty, J. J.,			
On Telephone Service in America	1	5	113
Casson, Herbert N.,			
*The History of the N. Y. Telephone Co.	2	1	4
	2	2	25
	2	3	49
*Beginning of Telephoning in New York City	1	5	97
	1	6	129
	1	7	163
A Modern Goddess (Poem)	2	9	211
*The Telephone and National Efficiency	1	1	1
	1	2	31
	1	3	49
The Wonders of the Telephone—In *The Mountain States Monitor*	4	8	230
*The Wonders of the Western Electric	1	4	84

Digitized by Google

	Vol.	No.	Page
***Casson, Herbert N.**	1	1	20
Lecture on The Pictured Story of the Telephone Girl	2	3	65
***Catskill, N. Y.,**			
Two Disastrous Fires in, by J. J. Malone	4	9	244
*Aqueduct, Telephone System of the Board of Water Supply of the City of New York Along the Line of the, by W. A. Bryant	2	12	259
***Cave-In**			
At Lexington Ave. & 87th St., Manhattan, During Rapid Transit Subway Construction	3	4	94
Censured			
For Doing Right, Wrongly (Ed.)	4	9	233
***Central Division,**			
Traffic Department	3	7	159
*First Annual Clam Bake, N. Y. Tel. Co.	4	8	227
Central Offices, New,			
Leonia, N. J., by H. Bell	3	2	53
*Hackensack, N. J.	3	3	77
*Buffalo, N. Y. (Tupper)	3	7	167
Pleasantville, N. Y., by E. E. Lattin	3	8	196
Croton Falls, N. Y.	3	8	196
Wyckoff, N. J.	3	9	199
*Saddle River, N. J., by M. J. Maloney	4	7	190
*Newark, N. J., by S. D. Crane	1	5	123
*Newark, N. J.	1	6	141
*Scarsdale, N. Y.	2	3	70
*Astoria, L. I.	2	5	126
Dumont, N. J.	2	6	143
Elmsford, N. Y., by W. A. Bryant	2	6	156
*Oakland, N. J.	2	8	203
*New Dorp, L. I.	3	1	24
Scarsdale, N. Y., by E. E. Lattin	3	2	52
Visitors to	4	4	120
Centralized Stenographic Bureaus	1	2	30
	1	3	69
	2	1	12
***Chalmers, Hugh,**			
Talking from Detroit to Boston	3	3	60
Chamberlain, E. R.,			
*International Motor Boat Carnival—Timed by Telephone	3	10	240
Yonkers' City Hall	2	6	157
***Champlain, Hotel,**			
Telephone Equipment of	1	7	174
Change of C. O. Batteries,			
At Morningside, by D. C. Price	4	7	193
Changes in System			
Of Party Line Numbering in the Western Division	1	2	43
Chapin, W. P.,			
*Telephone Equipment at the Rochester Baseball Park	2	6	152
Chappaqua, N. Y.	1	1	13
Character,			
And the Telephone	3	5	117
***Chesapeake & Potomac Tel. Co.,**			
Extends Hospitality to Visitors to the Convention of the Associated Advertising Clubs of America	4	7	198
Chesterman, F. J.	3	11	272
Plant Department of Central Division	4	1	19
Chatham, N. J.	3	3	79
Chelsea,			
Central Office	1	3	70
	2	10–11	256
***Chief Operators**	..		
Of Hudson Division, Conference of	4	1	11
Childe, Cromwell,			
*Social Uses of the Telephone	4	9	235
*The Customer	3	2	33
Christmas Spirit,			
The (Ed.)	4	12	321
China,			
Telephone Development in—*Western Electric News*	4	6	167
City Island	1	2	45
***Clam Bake,**			
First Annual, Central Division, N. Y. Tel. Co.	4	8	227
Long Island	2	5	124
	2	6	144
Clarke, Geo. A.,			
Telephone Service in the Fire Insurance Business—The Business of a Domestic Fire Insurance Company	4	3	67
Claverack, N. Y.	4	8	218
Clearwater, R. D.,			
*Kingston District	4	5	130
*How a Letter Reached Its Destination	2	4	91
Cleaves, L. L.,			
*Syracuse—Historical Sketch of the "Central City" and the Importance of the Bell System in Its Business and Social Life	3	6	135
Cliff Dwellers			
Entertained by Telephone at Residence of Mr. U. N. Bethell	2	4	85
Cliffside, N. J.	1	7	180
Clinton Corners, N. Y.	1	6	153
Clinton County Fair,			
Telephone Booth at, by W. H. Schuyler	2	9	222
Clippings,			
(Ed.)	4	7	178
Closter, N. J.	4	10	284
Club,			
Why Not a Telephone, by Wm. Miller	2	5	130
Coffin, P. O.,			
*Plans and Aims of the Accounting Department—(Paper read before The Telephone Society of New York, June 20, 1911)	2	7	161
Coin New Word,			
For Telephone Message (Ed.)	1	7	169
	2	1	13
	2	2	38
Colds,			
By Dr. Alvah H. Doty	4	11	312
***Collection of Revenue**			
From Automatic Pay Stations Facilitated by the Use of an Automobile, by S. V. Gibson	1	7	166
Collins, James H.,			
*A Day with the Telephone People in London	2	4	73
*A Day with the Telephone People in Paris.	2	6	137
*A Day with the Telephone People in Berlin.	2	1	1
Columbus District,			
Manhattan	4	11	..
Commercial			
Department's December Business at Buffalo.	2	1	19
Department of the Westchester Division, Co-Operation in, by A. S. Rossborough	4	12	341
Department of Manhattan-Bronx, by J. R. Pollock	4	1	3
Department of Westchester Div., by H. G. Kerr	4	1	7
Department of L. I. Division, by H. W. Drake	4	1	9
Department of N. J., by W. F. Baker	4	1	12
Department of Hudson Division, by J. A. Jamison, Jr.	4	1	15
Department of Central Div., by D. C. Cox	4	1	19
Department of Western Division, by C. A. Spaulding	4	1	22
Department, The, by J. S. McCulloh	3	1	9
Department Man, The, by J. O. Martin	2	1	10
Man, The Facile, by H. C. Follett	4	10	288
Men in Metropolitan Area, Meeting of	3	6	144
Men's Dinner at Buffalo	2	1	17
Office, Some Reflections upon the Opening of a New	1	5	117
*Offices, Equipment Displays in	1	4	79
*Training School in the Hudson Division, A.	2	2	44
Commercial Offices (New) at			
Utica, N. Y.	1	5	122
*Newark, N. J.	1	6	141
*Niagara Falls, N. Y., by S. W. Stearns	2	1	20
*Ithaca, N. Y.	2	2	45
*Auburn, N. Y., by Wm. J. Richards	2	5	131
*Englewood, N. J., by H. Bell	3	3	75
Salamanca, N. Y., by G. J. Blanc	3	3	76
Commerce,			
Act of Congress to Regulate	1	4	75
Commencement Exercises			
Of the Graduating Classes of Lyndon Institute and Lyndon School of Agriculture, Lyndon Center, Vt., June 20, 1913—Address of Theo. N. Vail	4	8	216
Common Battery			
Wiring Plans, Chart of	1	2	28
Comparison,			
Of America and Great Britain, Telephonic, by William Bell	1	4	80

Digitized by Google

	Vol.	No.	Page
Competition,			
Telephone, from "Public Ownership of Telephones on the Continent of Europe," by A. N. Holcombe, Ph.D.	2	6	155
Complaint			
Report for November, 1913, in Central Division, Routine	4	12	321
Complaints,			
(Ed.)	2	12	267
Complainants,			
Courtesy to, by W. D. Hanchette	2	7	175
Compliment			
To One of Our Covers, A (Ed.)	4	3	66
Composite			
Telephone and Telegraph System for Railway Service of Western Electric Co.	1	5	122
Comrade,			
A Congenial	4	9	257
Concert,			
A Telephone (Ed.)	2	12	268
Condon, F. C.,			
*Flatbush	4	4	111
Coney, E. A.,			
*Furnishing Telephone Service in Connection with the New York State Fair	4	10	270
***Coney Island,**			
Destruction of Dreamland at	2	6	148
Public Telephones at the Heart of	2	8	199
***Conference**			
Of Chief Operators—Hudson Div	4	1	11
Congdon, F. C.,			
*Maintenance	1	2	39
Congers, N. Y.	3	9	224
Congestion of Traffic,			
Result of Explosion	2	2	36
Connecting			
Company, Its Relation with the Bell, by Geo. W. Green	2	5	117
Companies, Our, by H. P. Miller	2	5	115
Company Notes	3	10	228
	3	11	251
	3	12	289
	4	1	32
	4	2	63
***Conservation**			
And the Wire Service, by F. H. Bethell—Paper read at meeting of the Telephone Society of N. Y., Oct. 24, 1911	2	10–11	233
*Of Distributing Frame Wire, The, by M. Greene	4	10	278
Consideration for Operators,			
(Ed.)	3	8	177
Consolidation and Cut-Over,			
At Hoosick Falls, N. Y., by F. L. Arland	3	3	74
Contest,			
Cover Design Voting (Ed.)	3	10	225
Contributor,			
Be a (Ed.)	3	6	141
***Convenience**			
For the Traveller, A Modern	3	11	262
Convention			
Of the Association of Railway Superintendents of Telegraph (Boston, June 26-30, 1911)	2	7	175
*Of the Associated Advertising Clubs of America Held at Baltimore, Hospitality of C. & P. Tel. Co. to Visitors	4	7	198
Of the National Progressive Party and State Fair at Syracuse, Telephone Service of the	3	10	233
Of Contract and Commercial Men, Annual	1	3	71
***Conventions,**			
And Universal Bell Service, The Great	3	7	166
Conversations and Matches,			
Telephone	1	2	46
Convicted in Court			
Of Special Sessions, Weglein, (Ed.)	1	3	61
Conway, Helen M.,			
A "Phoney" Dream	4	1	40
Cook, W. L.,			
Loyalty of a Former Employee	3	3	66
*Jersey City District	4	2	54
Cooke, M. A.,			
Analyzing a Trouble Complaint	4	5	141
Cooperation			
In the Western Division, Results of	4	6	151
In Western Division Still Continues (Ed.)	4	9	234
In the Western Division, Practical, Extending the Service	4	3	86
Between Departments	4	3	66
In Extending the Service	3	11	252
Which Should Exist Between Wire Chief and Chief Operators, by W. J. Mooney.	2	8	207
In the Westchester Division, by A. S. Rossborough	4	12	341
Cortland, N. Y.	4	8	217
Co-operative Spirit,			
Highest Evidence of Loyalty, by E. A. Oborne	4	8	209
Cost of Living,			
Telephone Reduces (Ed.)	4	8	206
Counter Agents,			
By E. Eastment	2	10–11	254
Courtesy,			
Telephone, by Henry Pieper	2	4	91
Telephone Man Gives Talk to Bank Employees on Telephone, by H. H. Pentz.	4	11	320
To Complainants, by W. D. Hanchette	2	7	175
Telephone, Automobile Company of America	4	4	107
Elbert Hubbard on	4	4	116
Lack of Telephone (Ed.)	4	2	41
Telephone (Ed.)	2	9	219
Another Aspect of (Ed.)	3	9	202
The Quality of, Act of a Young Man (Ed.)	4	6	149
By Miss Ada F. Wallace	4	6	176
Country Highway,			
The Telephone and the, by E. N. Bull	2	5	118
Country School Houses,			
By J. J. Malone	2	1	11
***County Fairs**	3	10	232
Cover			
Design Voting Contest (Ed.)	3	10	225
Covers,			
A Compliment to One of Our (Ed.)	4	3	66
Cover Contest,			
Another (Ed.)	3	12	274
Covers for Framing,			
Our (Ed.)	2	7	171
Cover Question,			
That (Ed.)	3	11	250
Cowell, H. D.,			
The Emergency Value of a Telephone	2	1	19
Cowell, H. B.,			
*East Aurora, a Famous American Village	2	7	176
Cox, D. C.,			
Commercial Department of Central Div	4	1	19
*The Telephone Society of N. Y.	3	6	129
Greater "Telephone Society of New York," the	2	4	102
Cozine, J. P.,			
*Albany Main to West "Cut-over"	2	12	273
Cozzens, F. M.,			
*Schenectady, Its New Joint Telephone and Telegraph Office	3	6	142
*Telephone Equipment in Schenectady Railway Waiting Room	4	11	316
*Telephone System of the General Electric Company at Schenectady	1	2	36
Crane, S. D.,			
*New Market Central Office, Newark, N. J.	1	5	123
Aerial Cable Distributing Plant in a Small Suburban Community	1	4	90
Cranford, N. J.	4	4	118
Cranford Fire,			
The, by G. A. Miller, Jr	3	2	41
Crawford, B. A.,			
More Politeness	4	5	129
Creamer, W. J.,			
Metropolitan Accounting Picnic	4	7	199
Crops			
Protected by Telephone	4	9	252
***Crotona Park,**			
Social Gathering of the Traffic Eve. Managers and Night Plant Force of the Manhattan-Bronx Division	4	6	175
Crowell, Stewart,			
*From the Banks of the Old Raritan	3	3	64
"Curiosity" Calls,			
Danger from	4	4	124

Digitized by Google

	Vol.	No.	Page
Curtis, W. J.,			
*Morristown, N. J.	3	9	209
***Customer,**			
The, by Cromwell Childe	3	2	33
***Custom House,**			
The New York, the Handling of Its Enormous Business Simplified by the Telephone	4	3	81
Cut-Overs, Telephone			
*Newark, N. J., by S. D. Crane	1	5	123
*Newark, N. J.	1	6	141
*Astoria, L. I.	2	5	126
Gouverneur, N. Y.	2	6	156
*New Dorp, L. I.	3	2	52
Medina, N. Y.	3	2	52
Hoosick Falls, N. Y.	3	3	74
Carmel, N. Y., by E. E. Lattin	3	10	247
*Buffalo, N. Y. (Tupper)	4	3	79
Buffalo, N. Y. (Seneca)	4	7	190

D

Dahl, J. C.,			
Talking to Santa Claus by Telephone	3	2	49
Dalton, W. A.,			
*Riverside Commercial Office	3	10	235
Dalzell, Fred. B.,			
The Tug Boat and the Telephone	3	9	205
Dam in Essex County Bursts,			
Telephone Operator a Heroine	3	5	117
Davey, L. J.,			
Silver Creek and Forestville (N. Y.)	4	12	342
Deal,			
A $25,000	2	10–11	246
Deas, A. W.,			
Accounting—Hudson, Central & Western Divisions	4	1	25
Deering, David,			
*A Novel Telephone Booth	2	4	85
*The Telephone on the Stage	1	3	54
Definitions	1	1	23
Demuth, A.,			
*Cable Work on Long Island	4	12	328
Denmark,			
The Telephone in (Ed.)	4	2	41
*The Telephone in—Some Comparative Remarks After a Journey in America, by Kristen Moller	4	2	44
Denver and New York			
On Speaking Terms	2	5	136
Depew, N. Y.	1	4	92
Designs,			
Our Cover (Ed.)	1	1	14
***Desk,**			
Campaign for Business from a Division Advertising Manager's Desk	1	1	19
	1	3	67
	1	4	88
Deskman,			
The, by R. A. Parisian	2	10–11	253
Development,			
Problem of, by F. R. Guy	2	5	121
***Dey Street**			
Commercial Office, The, by H. G. Atwater	3	5	118
Diagram			
Of Tel. System for Public Service Corp. of New Jersey	1	3	52
Dictating Letters			
By Telephone (Ed.)	3	8	177
Dinner			
At Buffalo Commercial Men's	2	1	17
At New Rochelle, Westchester Interdepartmental	2	2	42
Of Manhattan-Bronx Commercial Department, First Annual	1	7	176
*Of the Plant Accounting Club, Annual	3	1	22
And Theatre Party, The Westchester	3	1	22
***Directory,**			
To a Telephone—From a Roll of Paper	3	12	296
For New Jersey, A New Style of Telephone	4	2	61
Directories,			
Experiences of a Local Manager in Delivering, by H. J. Ackles	3	5	122
*Supplying N. Y. City with Telephone	1	6	145
Telephone, of N. Y. City, Obsolete	2	9	218
Disability Benefits,			
Pensions and Insurance, Plan for Employees	3	12	275
***Discovering South Pole,**			
Telephone to Assist in	1	3	68
Displays,			
Telephone	2	10–11	252
*In Commercial Offices, Equipment	1	4	79
*An Interesting Review of Telephone	1	5	118
Distributing Plant			
(Aerial Cable) in a Small Suburban Community, by S. D. Crane	1	4	90
Doctor and the Telephone,			
The, by F. P. Ashworth	3	8	199
The Modern	3	6	145
Do It Right,			
(Ed.)	2	2	37
Doner, A. E.,			
Prompt Restoration of Telephone Service	4	12	331
Doty, Dr. Alvah H.,			
The Public Health Movement and Our Part In It	4	2	43
Air	4	3	84
Water	4	4	108
Food	4	5	144
Personal Hygiene	4	6	164
The Means by Which Infection Is Transmitted	4	7	196
Warm Weather and How to Deal With It	4	8	214
The Mosquito, Its Relation to Disease and Necessity for Its Extermination	4	9	248
Tuberculosis	4	10	280
Colds	4	11	312
The Importance of Prompt Medical Advice and Treatment in the Presence of Disease and Injury	4	12	338
Dover, N. J.	3	7	176
Dover Plains, N. Y.	3	3	79
Downing, M. B.	4	2	59
Drake, H. W.,			
Commercial Department of L. I. Division	4	1	9
***Drama,**			
The Telephone	2	10–11	252
Dream,			
The Wire Chief's (Poem), from *Southern Electrician*	1	1	15
A "Phoney" (Poem), by Helen M. Conway	4	1	40
***Dreamland,**			
Destruction of, Coney Island	2	6	148
Dreams Go By Contraries			
(Poem), by Harry Beaudouin	3	4	90
Druggist,			
An Enterprising, by S. W. Gaylord	3	5	114
*Horton an Originator	2	2	45
Dumont, N. J.,			
Exchange District	1	6	156
Dunkirk, N. Y.	1	6	153
	2	8	206
Duty,			
On Telephone (Ed.)	2	10–11	244

E

Ear,			
The Telephone (Ed.)	4	7	178
***Early Telephone Equipment**			
In Troy, by P. J. Lumley	4	8	223
Early, C. T.,			
The Farmer and the Telephone	2	5	134
East Aurora, N. Y.	2	9	232
	4	10	285
*A Famous American Village, by H. B. Cowell	2	7	176
Easthampton, L. I.	1	1	13
	2	2	46
	3	3	78
East New York, L. I.	1	4	92
	2	2	46
	4	3	88
***East River,**			
Laying a Telephone Cable through the Pennsylvania Subway under the	2	9	226
East Rochester, N. Y.	4	1	31
***East Rochester Happened,**			
How—A New Village on the Bell Telephone Map, by G. S. Lord	4	8	212
Eastment, E.,			
Canvassing from an Agent's Standpoint	2	6	159
Counter Agents	2	10–11	254
Eddy, W. B.,			
*Telephone Development in Albany	2	10–11	247

Digitized by Google

	Vol.	No.	Page
Ednie, E. V.,			
Buffalo-New York Telephone Men on 74th Championship Rifle Team	4	10	279
Educator,			
The Telephone as an	1	4	86
Efficiency Innovation,			
Another (Ed.)	3	11	249
Efficiency	2	2	39
*National, and The Telephone, by Herbert N. Casson	1	1	1
	1	2	31
	1	3	49
And Success as Affecting Capital Values and Service Rates of Telephone Companies (Ed.)	2	2	37
The Master-Word of the Future (Ed.)	1	6	139
*In Traffic Work, by E. F. Sherwood, (Paper Read at Meeting of the Telephone Society of New York, March 22, 1911)	2	4	76
"Efficiency in Supervision,"			
By E. C. Michell	3	2	36
Efficient,			
100 Per Cent. by A. C. Pilger	3	10	242
Private Switchboard Attendants, The Importance of	2	2	39
***Election Returns,**			
Telephoning	1	6	150
*And the Telephone	3	11	260
Electioneering			
By Telephone	2	10–11	245
Elections,			
The Telephone and (Ed.)	4	11	289
***Electricity,**			
History of	2	9	216
***Electrolysis,**			
By Robt. M. Gillespie	3	12	300
Elias, A. B.	3	11	272
*Telephone Improvements in Watkins	2	7	181
Elizabeth, N. J.	2	10–11	256
	4	4	118
	4	10	284
Ellenville, N. Y.	3	3	79
Elliott, T. K., Jr.,			
*Newark, N. J.	2	2	29
Elmira, N. Y.	1	7	179
	3	7	176
*Street Scene at Night, by Robt. M. Gillespie	3	9	220
Emergency,			
Municipal Recognition of Telephone in	3	2	47–51
Cable Used to Good Advantage in the Paterson District, N. J. Division	3	3	67
Value of a Telephone, The, by H. D. Cowell.	2	1	19
Employee			
And the Public, The (Ed.)	3	2	43
Employees			
May Help to Extend the Service (Ed.)	3	10	225
Enamel Wire,			
Black	2	8	186
Engineering,			
Commercial, by H. R. Gabay	3	6	132
Department, by H. C. Carpenter	4	1	27
*Department, The, by R. M. Ferris	3	1	11
England,			
The Telephone Service in, from London *Times*	4	12	336
***Englewood, N. J.,**			
By H. Bell	4	10	266
*Fire, The	2	3	52
English Municipal Telephones,			
By H. Bell	1	5	126
Entertainment and Ball			
Of New York Telephone Employees, Third Annual	4	11	318
Enunciation			
Helped by Telephone Use	1	4	86
Equipment,			
A New Field for Telephone, by Frederic C. Kurz	2	5	122
*Of the "Berkshire" of the Hudson Navigation Co., Telephone	4	6	166
*(Telephone) of the New Pennsylvania Tunnels and Terminal in New York City	1	5	101
*Displays in Commercial Offices	1	4	79
*At the Rochester Baseball Park, Telephone, by W. P. Chapin	2	6	152
***Equitable Fire**			
And the Telephone, The	3	2	39
***Erie Beach,**			
Canada, First Western Get Together Day at.	4	8	228
Erie Canal,			
Telephones on, by F. D. Ferris	3	12	288
Esler, Geo. H.,			
The Telephone (Poem)			
***Estes, M. D.,**			
Telephone at Genesee Light	2	2	44
Estimated Cost			
On a Job Should be Correct, Why the, by O. W. McIndoo	4	4	120
Estimates,			
Concerning (Ed.)	4	4	94
***Everywhere,**			
It's	2	10–11	245
***Evolution of the Telephone Systems**			
Of the N. Y. Police Department, by J. N. C. Graham. Summary of paper read before the 119th meeting of the N. Y. Tel. Society, May 17	1	1	4
***Examinations**	3	12	291
Examples of Loyalty	3	10	244
***Exhibit**			
At Flushing Hospital Aid Association Carnival	2	6	141
***Exhibits**			
At the Fairs, Telephone	4	10	268
*And Their Purposes, Telephone	2	10–11	239
Exhibition Board			
In Utica, N. Y., Commercial Office, by S. B. French	2	2	43
Expense,			
The Telephone Cuts	4	12	343
Explosion			
Causes Congestion of Traffic	2	2	36
Of the Husted Milling Co., Buffalo—Operators Ready for Emergency	4	7	201
Extend the Service,			
Employees May Help to (Ed.)	3	10	225
Extending the Service,			
Results of Co-operation in the Western Division	4	6	151
Extension			
Station Canvass Possibilities, by W. A. Grant	2	1	7
Telephone, An, by S. C. Post	2	2	46

F

	Vol.	No.	Page
***Fair,**			
Furnishing Telephone Service in Connection with the New York State, by E. A. Coney	4	10	271
*Of the Rockland County Agricultural and Horticultural Association, Exhibit at	2	9	230
Fairport, N. Y.	4	3	88
***Fairs,**			
County	3	10	232
	4	10	268
*In Western Division, Telephone Service an Important Item at	4	10	271
Falconer, N. Y.	1	4	91
Fallacy,			
The Automatic	2	7	173
***Fans**			
And the Telephone, The	2	6	153
Farmer			
And the Telephone, The, by C. T. Early	2	5	134
Farmers' Exchange,			
The Monmouth County (N. J.)	2	9	227
Farmers' Telephones	1	1	16
***Farmers' Telephone Co.**			
Of Brown Mills, N. J., by M. W. Hargrove.	4	11	313
Far Hills, N. J.	2	5	133
Far Rockaway, L. I.	1	1	12
	3	3	78
***Fastening Cords**			
In Switchboards, A New Way of	1	1	22
H. B. Fenn,			
*Telephone System of the Public Service Corporation of New Jersey	1	3	50
Ferris, Robert Murray	4	8	205
*Engineering Department, The	3	1	11
Ferris, F. D.,			
Telephones on Erie Canal	3	12	288
Field,			
Notes from the	1	7	182
Filial Duty,			
(Ed.)	3	8	178

Digitized by Google

	Vol.	No.	Page
Finder of Men	4	2	53
The, Another Feat of, by Miss H. Adreance.	4	4	120
Fire			
*At Albany, The Capitol, by John E. Boisseau	2	4	82
At Bangor, Me., Lessons from	2	8	202
The Bayonne, by F. B. Schroder	3	2	42
The Cranford, by G. A. Miller, Jr.	3	2	41
Damages Cables at Jersey City	1	4	81
*The Englewood	2	3	52
*House of N. Y. Fire Dept., Moving a, by C. R. Albrechtson	4	3	86
Insurance Business, Telephone Service in the, 1—The Business of a Foreign Insurance Agency, by C. F. Shallcross; 2—The Business of a Domestic Fire Ins. Co., by Geo. A. Clarke; 3—The Business of the N. Y. Board of Fire Underwriters, by J. C. Forsyth	4	3	67
*In the Le Roy Central Office, The	3	3	62
*At Liberty (N. Y.), The Big, by A. S. Reynolds	4	7	201
At Newark, N. Y., Wayne Tel. Co. on the Job	3	4	100
Fighting by Telephone	2	12	280
At Schuylerville (N. Y.), Mrs. Halle Renders Service at	4	7	201
The Tupper Lake, by E. R. Stonaher	3	2	41
At Toms River, N. J.	1	1	20
Value of Telephone Service in Case of	1	2	29
***Fires**			
In Catskill, Two Disastrous, by J. J. Malone.	4	9	244
***First Annual Dinner**			
Of the New Jersey Division Employees	2	4	101
Of Manhattan-Bronx Commercial Dept	1	7	176
***Fish Story,**			
A—The Telephone to the Rescue	3	10	229
Flanagan, F. L.,			
A Case of Toll Line Trouble and What It Involved	3	2	51
***Flatbush,**			
By Messrs. E. A. Oborne, F. C. Condon and B. T. Hudson	4	4	111
District, Brooklyn, N. Y.	1	1	12
Floats of New York Tel. Co.,			
Jersey City Industrial Parade	1	6	148
W. Hoboken Industrial Parade, by J. E. Orr.	2	6	142
*Niagara Falls, N. Y.	2	8	203
*White Plains, N. Y.	3	9	223
*Warsaw, N. Y. (Independence Day)	4	8	211
Bolivar, N. Y.	4	10	267
***Flood,**			
Fire and Tornado, Operators and Linemen Bravely Face Death by	4	4	95
Floods,			
Preventing the (Ed.)	4	7	177
Floral Park, L. I.	2	5	131
Flushing, L. I.	1	7	180
	2	2	47
	3	3	78
	4	3	88
*Hospital Aid Association, Carnival Exhibit at	2	6	141
Follett, H. C.,			
The Facile Commercial Man	4	10	288
Food,			
By Dr. Alvah H. Doty	4	5	144
Football News			
By Telephone	2	10–11	240
Foraker, Burch,			
Plant Department of Manhattan-Bronx	4	1	4
Plant Department of Westchester	4	1	7
Foreign Notes	3	2	56
	3	9	224
Foreigner Lost,			
Found by Telephone, by J. S. Gates	4	10	276
***Foreman Houston's**			
Heroic Act	1	4	87
Forestville			
And Silver Creek (N. Y.) Telephone Service Extended into, by L. J. Davey	4	12	342
Forest Hills, L. I.	4	8	217
Forsyth, J. C.,			
Telephone Service in the Fire Insurance Business—The Business of the N. Y. Board of Fire Underwriters	4	3	67
Fort Edward, N. Y.	1	1	13
*High Water at the Door of the Central Office, by R. C. Bailey	4	6	173
***Fort William Henry,**			
Telephone Equipment of	1	7	174
***Foster, H. N.,**			
Supt. of Traffic, Chicago Tel. Co., The Telephone Operator	1	2	32
***Frame Wire,**			
The Conservation of Distributing, by M. Greene	4	10	278
France,			
Measured Rates Popular in	4	9	243
Franklin, R. F.,			
The Things We're Going to Do (Poem)	3	5	117
***Freak of the Wind,**			
By B. T. Tighe	4	12	343
Freehold, N. J.	2	6	158
Freeman, Wm.,			
A Friend of the Telephone	2	1	18
French, S. B.,			
Exhibition Board in Utica, N. Y., Commercial Office	2	2	43
Freeport, L. I.	1	1	12
	2	7	183
	2	8	206
	3	9	224
*New Police Telephone System for the Village of, by C. A. Ryder	3	12	287
Quick Installation at	3	3	69
Friend of the Telephone,			
A, Wm. Freeman	2	1	18
***Furnishing Telephone Service**			
In Connection with the New York State Fair, by E. A. Coney	4	10	270
Future and the Past			
Of the Telephone, The, by T. P. Sylvan	2	2	28

G

	Vol.	No.	Page
Gabay, H. R.,			
Commercial Engineering	3	6	132
	3	11	272
Gailor, E. H.,			
*New Commercial Office in North Tonawanda	4	8	210
Garden City Bldg.,			
Hempstead, L. I.	2	1	22
	2	2	47
	2	6	158
	3	10	244
Gas Main Blown Up by Dynamite,			
Subscribers Informed by Telephone	4	6	166
Gasport, N. Y.	4	1	31
Gates, J. S.,			
Foreigner Lost—Found by Telephone	4	10	276
Gaylord, S. W.,			
Always in a Hurry (Poem)	1	5	127
An Enterprising Druggist	3	5	114
***Gedney Farms Hotel,**			
White Plains, N. Y., Telephone Equipment of, by C. L. Stockwell	4	6	171
***General Electric Co.,**			
Telephone System of, at Schenectady, by F. M. Cozzens	1	2	36
***Genesee Light,**			
Telephone at, by M. D. Estes	2	2	44
Gentle Way,			
The (Editorial)	1	7	169
German Warships,			
Telephone Service for	3	7	166
Getting More			
Out of the Telephone	4	9	238
***Get Together Day**			
At Erie Beach, Canada, First Western	4	8	228
Gettysburg,			
(Ed.)	4	7	177
Gherardi, B.,			
*Some Recent Advances in Transmission Efficiency of Long Distance Circuits	2	5	105
Gibbs, Merrill J.,			
*Telephone Exhibit at Newark Industrial Exposition	3	7	173
Gibson, B. F.,			
*Bowling Tournament at Rochester, April, 1913	4	5	147
*Rochester Industrial Exposition	4	11	320
Gibson, S. V.,			
The Value of a "Prospect" to the Commercial Department	2	10–11	249

Digitized by Google

	Vol.	No.	Page
Gibson, S. V.,			
*Collection of Revenue from Automatic Pay Stations Facilitated by the Use of an Automobile	1	7	166
Gillespie, Robert M.,			
*In the Snow Belt	3	3	65
*Electrolysis	3	12	300
*Elmira Street Scene at Night	3	9	220
Gimbel Bros.'			
Private Switchboard	2	12	270
"Glee Club"			
Blue Bell	2	6	144
Glen Cove, L. I.	3	10	244
*Looking Ahead at, by H. H. Shearer	4	10	282
Glen Telephone Co.			
Outing	4	10	274
Banquet	3	4	99
Offers Prize for High School Students	2	3	62
	2	7	172
	2	7	178
Goddess,			
A Modern (Poem), by Herbert N. Casson	2	9	211
Golf Tournament,			
A Telephone	4	8	229
"Good-Bye,"			
By C. F. McCord	4	10	283
Goodloe, Steven B.,			
*Some Aerial Construction in Manhattan	4	9	241
Gouverneur, N. Y.	1	6	153
	2	5	133
Graham, J. N. C.,			
*Evolution of the Telephone Systems of the New York Police Department. Summary of paper read before the 119th meeting of the N. Y. Tel. Society, May 17	1	1	4
*Telephone Installation at the Hotel McAlpin	4	2	49
Grand Union Hotel,			
Saratoga, N. Y.	1	1	13
Grant, W. A.,			
Extension Station Canvass Possibilities	2	1	7
Grassell, E. C.,			
Lancaster, N. Y., Celebrates Its Centennial	4	9	250
Great Britain			
And America Telephonically Compared, by William Bell	1	4	80
Great Neck, L. I.	1	1	12
	3	9	223
Great White Way,			
Mount Vernon's, by A. V. Sedgwick	4	11	317
Greater "Telephone Society of New York,"			
The, by D. C. Cox	2	4	102
***Greater New York Telephone Co.,**			
The, Address of U. N. Bethell Given at N. Y. Tel. Society Meeting, N. Y. City, Nov. 15, 1910	1	6	132
Greene, Herbert G.,			
*The Public Telephone Department	2	9	223
Greene, M.,			
*The Conservation of Distributing Frame Wire	4	10	278
*The Value of Trouble Statistics	1	7	167
Green, Geo. W.,			
The Relation of the Connecting Company with the Bell	2	5	117
Greenleaf, E. H.,			
*Kingston District	4	5	130
Greenwich, Conn.	1	1	13
	1	2	42
Greenwood Lake, N. Y.	2	6	157
Greer, S. M.	4	1	35
Salesmanship in *System*	4	10	263
Gregg, Miss Edith M.,			
How the Telephone Captured a Burglar	4	12	344
Grievance,			
The Man With a (Ed.)	3	3	69
Grocery Business,			
The Telephone in the	4	4	124
Grosset & Dunlap,			
Book Telephone Display	2	12	279
***Growth,**			
Keeping a Record of, by F. W. Warnke	4	7	189
***Gunnison River, Colorado,**			
Telephone Service Safeguarded by Long Span Across	4	9	259
Guy, F. R.,			
Problem of Development	2	5	121
***Guy Wire**			
Averts a Tragedy	2	10–11	249

H

***Hackensack,**			
Development of the Telephone in	4	5	136
N. J. Exchange, Letter from a Subscriber after Visiting	4	6	167
***Hadley,**			
Pres. of Yale Talking from New Haven to Chicago	3	3	60
Hains, R. W.,			
Our Town Belle (Poem)	3	1	18
Hall, L. C.,			
*Jersey City District	4	2	54
Hall, W. H.,			
*Steamer St. Paul Grounded off Long Branch	4	1	6
Halle, Mrs.,			
Renders Service at Schuylerville (N. Y.) Fire	4	7	201
Hallowe'en Party			
Of the Albany Traffic Clerks	3	12	299
Hammels, L. I.	1	1	12
	3	3	78
Hanchette, W. D.,			
*The Introduction of the Telephone Into Northern New York	2	5	111
Courtesy to Complainants	2	7	175
***Hardware Exhibition**			
At Albany, Telephone Display at	3	4	102
Hargrove, M. W.,			
*Farmers' Telephone Co. of Brown Mills, N. J.	4	11	313
***Harlem and the Heights,**			
Blazing the Telephone Trail through, by C. Lovibond	2	8	193
***Harlem Commercial Office,**			
The New—And the Exchange Districts of Harlem, Morningside and Audubon, by T. P. Ward	4	8	207
Hartzell, C. H.,			
The Telephone Operator	4	7	193
*Does the Weather Affect the Telephone Bill?	2	5	119
Hasbrouck Heights, N. J.	4	6	170
	4	11	307
Hats Off			
To the Man on the Job	2	1	10
Have You a Telephone,			
By the Way (Ed.)	3	2	43
Haverstraw, N. Y.	1	1	12
	1	2	42
*Public Telephone Sign on Waterfront at, by A. S. Rossborough	4	6	173
Health,			
The Telephone an Aid to	4	4	124
Health Movement,			
The Public—And Our Part in It, by Dr. Alvah H. Doty	4	2	43
Heard a Fire			
Over Three Miles Away, by W. S. Mason	4	9	250
Heard the Same Sound Twice,			
By L. E. Bailey	3	1	18
Heep, W. F.,			
Telephone Detects Defective Plumbing	3	5	122
Heep, W. G.,			
Lectures in Yonkers	2	4	90
Hello,			
Don't Say, by Miss Irene M. Sweeney	2	2	42
Hempstead, L. I.,			
Garden City Bldg	2	1	22
	2	2	47
	2	6	158
	4	4	118
Henkel, W. F.,			
*The Telephone and the Panama Canal	3	11	254
***Heroic Act**			
Of Foreman Houston	1	4	87
Heroism			
Of Telephone Operator at Dam Burst	3	5	117
*Of Operators and Linemen in Floods and Tornado in Middle West and N. Y. State	4	4	95
*Of Telephone Operators	2	9	232
***Heroines Rewarded,**			
Telephone	2	10–11	246
Hicksville, L. I.,			
And the Telephone	2	5	124

Digitized by Google

	Vol.	No.	Page
Hida, Mr. Takeo,			
*An Interview with—Japan and America Telephonically Compared	4	8	219
High School Science Club			
Visits Main Central Office, Albany	4	11	317
Highlands, N. J.	1	1	13
Hill, Miss Aimee,			
Loyalty of	3	9	221
Hill, P. S.,			
Pres. of the American Tobacco Co., Talks Direct Over the Telephone—*Wall St. Journal*	3	3	67
Hints to Telephone Men,			
By G. A. Miller, Jr.	2	5	133
Hiss, W. J.	3	10	241
***History**			
Of Electricity	2	9	216
*Of the New York Telephone Co., by Herbert N. Casson	2	1	4
	2	2	25
	2	3	49
*Of the Albany, N. Y., Exchange, Early, by Henry W. Pope	2	2	34
Of the Telephone, by Herbert N. Casson (Editorial)	1	5	114
Telephone, by F. C. Mason	3	1	15
Hoboken, N. J.	3	5	128
***Hoe and Co.,**			
Telephone Equipment of	3	9	216
Hoffman, G. W.,			
Traffic Complaints	4	10	283
Holcombe, A. N., Ph. D.,			
Telephone Competition, from "Public Ownership of Telephones on the Continent of Europe"	2	6	155
Honeyman, P. D.,			
Plant Department of L. I. Division	4	1	10
Honor Roll,			
On the—Telephone Operator Gives News of Titanic Disaster	3	5	116
Hoosick Falls, N. Y.	2	5	132
Hornell, N. Y.	1	6	153
Hotel Gazette (N. Y.),			
About Telephoning	4	12	341
***Hotel**			
Imperial, Installation Force Equip the New Switchboard in the, by C. J. Murphy	4	11	310
*Utica, New Private Branch Exchange Equipment in, by W. J. Mitchell	3	6	146
*Stadler, Buffalo, Installs 500 Telephone Stations	1	4	82
*Lafayette, Buffalo, New Switchboard at	1	7	173
*Champlain, Telephone Equipment of	1	7	174
*McAlpin, Telephone Installation at the, by J. N. C. Graham	4	2	49
Housekeeping Helps,			
(Ed.)	2	12	268
Howell, G. H.,			
An Incident of Salesmanship	3	2	54
Hubbard, Elbert,			
On Courtesy	4	4	116
On Telephone Systems	3	11	267
Hudson, B. T.,			
*Flatbush	4	4	111
Hudson, N. Y.	4	3	88
*Division, A Commercial Training School in the	2	2	44
Valley to Have Single, Complete Telephone System	2	12	280
Humorous			
And Said to Be True	3	7	162
Huntington, Ford,			
*Notes from the Secretary and Treasurer	3	1	4
	3	12	283
Huntington, L. I.	3	3	78
Hurry,			
Always in a (Poem), by S. W. Gaylord	1	5	127
***Husking Party**			
Of the Albany Operators, by R. S. Williams.	3	12	299
Husted Milling Co., Buffalo,			
Explosion at—Operators Ready for Emergency	4	7	201

I

	Vol.	No.	Page
Ideal,			
An Operator's (Poem), by Sadie E. Berry	2	5	118
Imagination,			
(Ed.)	3	8	178
Impaneling a Jury			
By Telephone	3	6	147
***Imperial Hotel,**			
Installation Force Equip the New Switchboard in the, by C. J. Murphy	4	11	310
Importance			
Of Efficient Private Switchboard Attendants, The	2	2	39
Of Your Job (Ed.)	4	10	261
***Impressions of the Year,**			
By H. F. Thurber	3	1	2
***Indian Squaw**			
Under the Blue Bell Sign, by Francis Wm. Vreeland	4	11	317
Indications of Trouble			
In Storage Batteries, by J. R. Lane	4	7	200
Individual Line,			
Get an (Ed.)	4	7	179
Individual Responsibility,			
Pacific Telephone Magazine	4	12	344
Individuality,			
(Ed.)	2	7	171
And Originality (Ed.)	2	8	197
***Industrial Exhibition,**			
The Second Woman's Telephone Booth at	4	3	83
***Industry of the World,**			
Telephone	1	2	25
Infection Is Transmitted,			
The Means by Which, by Dr. Alvah H. Doty	4	7	196
Information Bureaus,			
Central, Manhattan and Bronx	2	2	48
New Central, Brooklyn	2	3	68
Ingalls, John Jas.,			
Sonnet on Opportunity (Poem)	1	1	23
Inspector's Suggestion,			
An (Ed.)	3	8	177
***Installation Force,**			
The May Rush With the Southern Manhattan, by J. A. Lynch	4	6	162
***Installation**			
At the Hotel McAlpin, Telephone, by J. N. C. Graham	4	2	49
*Force Equip the New Switchboard in the Hotel Imperial, by C. J. Murphy	4	11	310
Installers			
As Business Getters	3	5	116
Instruction Book			
For Wire Chief's Forces, New Plant	2	7	172
Instructions			
In Telephoning	3	9	212
***International Exposition**			
Of Safety and Sanitation, Two Medals Awarded New York Telephone Co. at the	4	12	322
Insurance,			
Disability Benefits and Pensions, Plan for Employees'	3	12	275
Inter-Departmental			
Dinner in Plattsburg, N. Y., by E. H. Schuyler	2	5	128
*Theatre Party and Dinner, by Miss Margaret Moesinger	2	5	130
***Inter-Collegiate**			
Rowing Association at Poughkeepsie, Telephone and Telegraph Facilities, by E. N. Bull	4	7	188
***International**			
Motor Boat Carnival, Timed by Telephone, by E. R. Chamberlain	3	10	240
Welfare Congress in Washington, Telephone Exhibit at	3	10	226
Interstate			
Business, How Telephone Companies Engaged in are Affected by the Act to Regulate Commerce, as Amended, 1910	1	6	157
***Introduction**			
Of the Telephone into Northern New York, by W. D. Hanchette	2	5	111
Of Local Offices in Manhattan	2	3	62
Irvington, N. J.	4	6	170
Ithaca, N. Y.	1	7	181

J

	Vol.	No.	Page
***Jacks,**			
Moving Pole Lines by Means of	4	1	30

Digitized by Google

	Vol.	No.	Page
Jackson, F. L.,			
*The New Buffalo Toll Board	4	8	224
Jacobs, P. O.,			
Plant Department of Western Division	4	1	22
Jamaica, L. I.	2	10–11	256
	3	3	78
***Jamaica, L. I.,**			
by B. B. Andrews	4	7	182
Jamestown (N. Y.),			
Loyalty of Operators at Fire at	4	12	345
Jamison, J. A., Jr.,			
Commercial Department of Hudson Div	4	1	15
***Japan and America**			
Telephonically Compared, An Interview with Mr. Takeo Hida	4	8	219
Jersey City, N. J.	1	6	155
***Jersey City District,**			
By Messrs. L. C. Hall, F. B. Schrader and W. L. Cook	4	2	54
Jersey City's			
Industrial Parade	1	6	148
Jersey City			
Cables Damaged by Fire	1	4	81
***Jersey Shore, The North,**			
By Messrs. J. A. Waterbury, W. C. Applegate and B. T. Tighe	4	12	323
Jerusalem,			
Telephone System in	4	3	92
Job,			
The Importance of Your (Ed.)	4	10	261
Joint Western Union & N. Y. Tel. Co. Offices,			
*Hudson, N. Y., by J. J. Malone	3	2	48
*Englewood, N. J., by H. Bell	3	3	75
*Schenectady, N. Y., by F. M. Cozzens	3	6	142
*Newark, N. J., by F. O. Ludlow	3	7	168
Lockport, N. Y., by W. J. O'Hea	3	8	197
Dobbs Ferry, N. Y	3	8	197
Jones, Rev. Geo. Heber,			
The Telephone in Mission Stations	1	2	47
Jones, Miss K. C.,			
*The Telephone School	2	3	55
Jury by Telephone,			
Impaneling a	3	6	147

K

Keep A-Goin'			
(Poem), by Frank L. Stanton	2	1	20
Kelleher, C. F.,			
Reminiscences	2	1	21
Kenmore, N. Y.	2	10–11	256
Kennedy, H. H.,			
Traffic Department of Central Division	4	1	21
Kenwood, N. Y.	2	7	184
Kerr, H. G.	4	1	35
Commercial Department of Westchester Div.	4	1	7
Keteltas, A. H.,			
*An Unusual Cable Trouble	4	12	331
King, I Want to Be the			
(Poem), by Thos. J. Marrin	4	1	28
***Kingston District,**			
By Messrs. R. D. Clearwater, E. H. Greenleaf and G. O. MacNabb	4	5	130
Kingston, N. Y.	2	9	232
Visiting Central Offices	4	5	142
Kirkbright, W.,			
*Plant Inspectors—The "Troublemen" Who Make Things Right	4	10	277
Kirkwood & Biggsville, Ill.,			
Telephone Service in	4	12	333
Kitchawan Tel. Co.,			
N. Y. Tel. Buys	3	8	198
Knudsen, Charles P.,			
The Care of Tools	4	11	319
Kurz, Frederic C.,			
A New Field for Telephone Equipment	2	5	122

L

Lafayette Hotel,			
Buffalo, N. Y	1	1	13
Lake Shore,			
Western, N. Y	2	2	47
Lakewood, N. Y.	1	1	13
Lakewood, N. J.	4	12	334
Lancaster, N. Y.	1	4	92
Celebrates Its Centennial, by E. C. Grassell	4	9	250
Lane, J. R.,			
Storage Batteries—Indications of Trouble	4	7	200
***Laying Submarine Cable**			
In Buffalo Harbor	4	7	191
Lectures			
On the Telephone Given in the Albany High School	4	4	116
Lecture by H. N. Casson,			
The Pictured Story of the Telephone Girl	2	3	65
Lectures			
On the Telephone	3	3	80
In Newark Schools, Telephone	4	7	200
Telephone	3	1	15
Lee, John,			
Traffic Manager Telephones, General P. O., London, Advertising the Telephone	2	8	198
***Legal Department,**			
The, by C. T. Russell	3	1	5
Lehigh Valley Private Cars,			
Telephones on	1	3	62
Lenox			
Central Office	1	3	70
Leonia, N. J.	2	6	158
***Le Roy Central Office,**			
The Fire in the	3	3	62
Lester, S. E.,			
*A New Field for the Telephone	3	8	181
Lestershire, N. Y.	4	6	170
***Letter**			
From Mr. U. N. Bethell	3	1	13
Reached Its Destination, How a, by R. D. Clearwater	2	4	91
Liberty, N. Y.	3	3	79
*Big Fire at, by A. S. Reynolds	4	7	201
Lightbody, Frank,			
*Window Display at Patchogue Local Office.	1	6	149
Lillis, Geo. F.,			
Peekskill Operators Popular	3	4	99
***Limousine,**			
A Telephone for the *Western Electric News*.	4	9	258
Linde, A. E.,			
Transfer of Lines from Old to New Murray Hill Central Office	4	2	60
Lindenhurst, L. I.	4	6	170
	4	11	307
***Linemen and Operators**			
Bravely Face Death by Tornado, Fire and Flood	4	4	95
Lineman,			
The, by W. R. Spaulding	3	5	126
Linn, George,			
*The Telephone and the Water Front—Tug Boat Despatching	3	9	204
***Loading Coils**	2	5	135
Local Agent			
Is the Centre of His District, Every (Ed.)	4	6	150
Local Offices in Manhattan,			
Introduction of	2	3	62
Lockport, N. Y.	2	2	69
Lockwood, T. D.,			
Remarks upon Mr. Gherardi's Paper	2	5	110
Loomis, A. F.,			
*Plaza-Lenox Exchange Districts	4	6	152
***Looping-the-Loop**	3	2	52
London,			
A Letter from, by Mr. F. G. Turner	4	2	42
*A Day with the Telephone People in, by James H. Collins	2	4	73
London Times,			
The Telephone Service in England	4	12	336
Long Branch, N. J.	1	1	12
	1	2	42
Common Battery in	3	8	198
*Steamer St. Paul Grounded Off, by W. H. Hall	4	1	6
***Long Distance Talking,**			
Some Significant—Pres. Hadley of Yale, from New Haven to Chicago; Hugh Chalmers, from Detroit to Boston, and "The Woman" to "The Woman," between N. Y. and Chicago	3	3	69
Long Distance			
To Catch Criminals	3	3	71
Call for Butter	2	6	160
***Long Distance Circuits,**			
Some Recent Advances in Transmission Efficiency of, by B. Gherardi	2	45	105
Long Distance Telephoning			
(Ed.)	1	7	169

Digitized by Google

	Vol.	No.	Page
Long Distance,			
Value of	4	8	211
***Long Island,**			
Building Toll Lines on	4	11	315
*Cable Work on, by A. Demuth	4	12	328
Clam Bake, The	2	6	144
Long Island Division			
Passes 100,000 Station Mark	2	4	90
***Long Island Construction,**			
Suburban	3	11	253
***Long Island,**			
A Day with the Plant Department on—The Plant Man on the Job	4	3	70
Lord, G. S.,			
*How East Rochester Happened—A New Village on the Bell Telephone Map	4	8	212
***Loyal Operators**			
Remain on Duty Under Trying Conditions	1	4	83
Loyalty	4	12	345
Of a Former Employee, by W. L. Cook	3	3	66
Of Miss Amiee Hill at Corning, N. Y.	3	9	221
Examples of	3	10	244
Highest Evidence of—The Co-operative Spirit, by E. A. Oborne	4	8	209
Of Rahway (N. J.) Operators, by Geo. W. Beebe	4	8	226
Lovibond, C.,			
*Blazing the Telephone Trail Through Harlem and the Heights	2	8	193
Lubricant,			
Speed as a (Ed.)	2	1	13
Ludlow, F. O.,			
*Newark Joint Telephone-Telegraph Office, The	3	7	168
*Campaign Tour of Pres. Taft Followed by W. U. Commercial Car	3	7	173
*Telephone Orders for Drugs	2	5	129
Luger, J. P.,			
*Tent Life in the Woods	2	7	179
Lumley, P. J.,			
*Early Telephone Equipment in Troy	4	8	223
***Lunch Wagon,**			
Public Station in a, by Mark Mellor	2	6	144
Lyon, O. C.,			
*Night Order Writing Force	4	3	83
Lyndon Center, Vt.,			
Address of Mr. Vail at the Commencement Exercises of the Graduating Classes of Lyndon Institute and Lyndon School of Agriculture at	4	8	216
Lynch, J. A.,			
*The May Rush with the Southern Manhattan Installation Force	4	6	162
Lynch, J. C.	4	6	168
Traffic Department of New Jersey	4	1	14

M

MacKnight, O. G.,			
How Traffic Maintained Service by Re-Routing in Westchester Division	4	1	37
MacMinn, Miss L.,			
*A Masquerade Party at Main—Albany	3	12	298
MacNabb, G. O.,			
*Kingston District	4	5	130
Madden, W. J.,			
The Successful Manager	4	5	142
Madison Square			
Central Office	1	3	70
Magic of the Telephone,			
The—*N. Y. Tribune,* 5/27/13, Editorial	4	6	149
Mahony, P. E.,			
*Tremont Local Commercial Office	4	12	326
***Maintenance**			
Summary of Paper, by F. C. Congdon, Read Before 120th Meeting of N. Y. Tel. Society	1	2	39
Department in Buffalo Organizes Social and Efficiency Club	4	10	271
Telephone, in the N. J. Division, by J. T. Blake	1	3	65
*Station, by B. Philip	1	3	63
Malone, J. J.,			
*Two Disastrous Fires in Catskill, N. Y.	4	9	244
Country School Houses	2	1	11
*Joint Western Union and New York Telephone Company Offices, Hudson, N. Y.	3	2	48
Be a Booster	1	7	170
Malone, Judge Walter,			
Opportunity (Poem)	1	1	23
Maloney, M. J.,			
*Saddle River Central Office	4	7	190
Man on the Job,			
Hats Off to	2	1	10
Man,			
Commercial Department, by J. O. Martin	2	1	10
Manager,			
The Successful, by W. J. Madden	4	5	142
Manners Lost Order,			
Bad Telephone	4	11	289
Mapother, C. E.,			
Telephone Development in Bedford Commercial District, Brooklyn	3	2	51
*Bedford Commercial Office	3	11	264
Marine News Reporting,			
By A. F. Aldridge	3	9	206
Marlboro, N. Y.	1	6	154
Martin, J. O.,			
The Commercial Department Man	2	1	10
Selling a Telephone	1	5	123
Marrin, Thos. J.,			
I Want to Be the King (Poem)	4	1	28
Martin, Wm. D.,			
*The Telephone and the Potato Crop of Monmouth County, N. J.	1	4	89
Massapequa, L. I.	3	10	243
***Masquerade Party at Main—Albany,**			
By Miss L. MacMinn	3	12	298
Mason, F. C.,			
An Interesting Reminiscence	3	1	15
Mason, W. S.,			
Heard a Fire Over Three Miles Away	4	9	250
Master-Word of the Future,			
The (Editorial)	1	6	139
Matches,			
Telephone Conversations and	1	2	46
***"Maximum Loads"**	3	5	126
McAlpin Hotel,			
Manhattan, Telephone Equipment of	3	10	243
***McAlpin,**			
Telephone Installation at the Hotel, by J. N. C. Graham	4	2	49
McCann, H. K.	2	2	38
*The Most Useful Book in New York (from an Article in *Advertising and Selling*)	1	1	9
McCann, D. H.,			
*The Telephone and Brick Industry	3	12	295
McCord, C. F.,			
"Good-Bye"	4	10	283
McCulloh, J. S.,			
*Commercial Department, The	3	1	9
McIndoo, O. W.,			
Why the Estimated Cost on a Job Should Be Correct	4	4	120
McDougall, H.,			
Meeting an Emergency With Auxiliary Batteries	4	12	337
McMillan, Emerson,			
Believes Public Utilities Should Be Monopolies	4	2	64
Measures Rates			
Popular in France	4	9	243
Mechanicsville, N. Y.	2	5	132
Meeting of Commercial Men			
In Metropolitan Area	3	6	144
Meeting Place of Employees			
Is the *Telephone Review* (Ed.)	1	4	87
***Medal of Progress,**			
A	4	5	140
***Medals Awarded N. Y. Tel. Co.**			
At the International Exposition of Safety and Sanitation, Two	4	12	322
Medical Advice and Treatment			
In the Presence of Disease and Injury, The Importance of Prompt, by Dr. Alvah H. Doty	4	12	338
Medina, N. Y.	4	1	31
	4	12	335
Campaign for Subscribers at	3	4	101
Meeting an Emergency,			
By L. R. Merson	4	10	274
Meggs, F. E.,			
Piping Rock Country Club	3	10	234

Digitized by Google

	Vol.	No.	Page
Mellor, Mark,			
The Telephone in Moving Pictures	3	6	147
*Public Station in a Lunch Wagon	2	6	144
*New Rochelle	1	7	171
Melrose District,			
N. Y. City	1	6	155
	2	5	131
Meridian Club	3	3	70
Merrill, G. H.	4	6	168
Merson, L. R.,			
Meeting an Emergency	4	10	274
Messenger Boys			
In Manhattan and Bronx Division, Training School for Office and	1	7	174
***Messenger,**			
Tickets by Telephone Delivered by	1	3	72
Metropolitan Accounting Picnic,			
By W. J. Creamer	4	7	199
***Metropolitan Night Force,**			
The, by L. M. Allen	4	12	340
Mexican Telephone Workers			
Stick to Their Posts Amid Shot and Shell	4	4	115
***Mexican War,**			
The Telephone in	2	6	155
Mexico, N. Y.	2	7	184
Michell, E. C.,			
"Efficiency in Supervision"	3	2	36
Accounting—Metropolitan Division	4	1	25
***Middlesex Telephone Co.,**			
(N. J.)	4	5	135
Miller, G. A., Jr.,			
The Cranford Fire	3	2	41
Hints to Telephone Men	2	5	133
Miller, H. P.,			
Our Connecting Companies	2	5	115
Miller, Wm.,			
Why Not a Telephone Club?	2	5	130
On Salesmanship	3	2	54
Mimic Warfare	3	10	239
***Mine Rescue**			
Telephone Equipment, New—*Western Electric News*	4	9	258
***Miniature Telephone**			
Plant Exhibit, by A. T. Seymour	3	7	172
Mission Stations,			
The Telephone In, by Rev. Geo. Heber Jones	1	2	47
***Missouri & Kansas Tel. Co.**			
Hauling Poles	4	10	279
Mitchell, W. J.,			
*New Private Branch Exchange Equipment in Hotel Utica	3	6	146
***Model Tenements,**			
Telephone Service for	3	9	218
Moesinger, Miss Margaret,			
*Inter-Departmental Theatre Party and Dinner	2	5	130
Moller, Kristen,			
*The Telephone in Denmark—Some Comparative Remarks After a Journey in America	4	2	44
Monmouth County	4	1	31
*N. J., Potato Crop and the Telephone, by Wm. D. Martin	1	4	89
Coast Resorts	1	5	128
(N. J.) Farmers' Exchange, The	2	9	227
*Fair, by A. B. Wilson	2	9	231
Monopolies,			
Believes Public Utilities Should Be, Emerson McMillin	4	2	64
Montclair, N. J.	1	4	91
	3	7	175
First Elevator Building in	3	1	23
Mooney, W. J.,			
Co-operation which should Exist between Wire Chief and Chief Operators	2	8	207
Morningside			
Cen. Office	1	3	70
Change of C. O. Batteries at, by D. C. Price	4	7	193
***Morristown, N. J.,**			
Telephone Service in, by W. J. Curtis	3	9	209
Motor Boat Race			
Reported by Telephone	1	4	78
Mosquito,			
Its Relation to Disease and Necessity for Its Extermination, by Dr. Alvah H. Doty	4	9	248
***Motor Boat Carnival,**			
International—Timed by Telephone, by E. R. Chamberlain	3	10	240
Motorist's Friend			
In Time of Need (Ed.)	2	5	123
Mount Vernon's			
Great White Way, by A. V. Sedgwick	4	11	317
***Mountain Adventure**			
In 1950	1	7	183
Mouthpiece,			
One Way of Replacing a Transmitter	4	10	282
***Moving**			
A Fire House of the N. Y. Fire Dept., by C. R. Albrechtson	4	3	86
Pictures, The Telephone In, by Mark Mellor	3	6	147
*Pole Lines by Means of "Jacks"	4	1	30
Mt. Kisco, N. Y.	1	1	13
Mt. Vernon, N. Y.	2	8	206
	3	7	175
Multi-coin Telephone,			
The	3	1	14
Municipal			
Recognition of Telephone in Emergency	3	2	47–51
Telephones, English, by H. Bell	1	5	126
Murphy, C. J.,			
*Installation Force Equip the New Switchboard in the Hotel Imperial	4	11	310
Murray Hill Central Office,			
Transfer of Lines from Old to New, by A. E. Linde	4	2	60
Music by Telephone,			
Dictating—Letter from H. L. Tyler, Editor of *Ambition*	4	9	247
Musical Courier Extra,			
Piano Business and the Telephone	4	8	220
Mutual Benefit Society,			
Report of the Tenth Annual Meeting of the N. Y. and N. J. Tel. Co. Employees'	1	5	116
Third Annual Meeting of the New York Tel. Co. Employees'	1	6	140
Of the Long Island and New Jersey Divisions, Employees'	2	10–11	251
N. Y. Tel. Co. Employees'	2	6	147
	2	8	196
	2	12	271–279
	3	1	10
	3	2	46
	3	3	67
	3	6	148
	3	10	227
	3	12	285
	4	2	42
Of L. I. and N. J. Divisions, Annual Meeting of N. Y. Tel. Co. Employees'	3	11	270
Dissolved	4	2	41
Mutual Relations			
And Interests of the Bell System and the Public—Statement by Theo. N. Vail	4	9	242

N

Nanuet, N. Y.	3	9	224
***Naval Parade**			
And the Telephone, The	2	12	266
Navy Yard,			
United States, Brooklyn	1	5	127
***National Conventions,**			
Democratic and Republican, and Universal Bell Service	3	7	166
***Naval Review**			
And the Telephone	3	11	267
Nerves,			
A System of (Ed.)	4	9	234
Newark, N. J.	1	1	12
	1	3	70
	1	4	91
	1	5	128
	2	5	133
	3	9	224
*By T. K. Elliott, Jr	2	2	29
*Building (N. J.) Universal Signs on the	4	5	143
*Industrial Exposition, Telephone Exhibit at, by Merrill J. Gibbs	3	7	173
*Market Central Office, by S. D. Crane	1	5	123
Schools, Telephone Lectures in	4	7	200
Newburgh, N. Y.	2	5	132
*By E. W. Bigler	2	1	8
New City, N. Y.	3	9	224

Digitized by Google

	Vol.	No.	Page
New Dorp, S. I.	1	7	179
	2	2	46
	2	5	133
	2	9	232
New Field			
For Telephone Equipment, A, by Frederic C. Kurz	2	5	122
*For the Telephone, A, by S. E. Lester	3	8	181
***New Jersey**			
Division Employees, First Annual Dinner of	2	4	101
Firm Pays for Telephone Calls of Customers	2	2	46
Division, Passing the 100,000 Mark in	1	7	173
*Division, Telephone Maintenance in the—by J. T. Blake	1	3	65
A New Style of Telephone Directory for	4	2	61
***New Rochelle,**			
By Mark Mellor	1	7	171
New Kenmore Hotel			
At Albany, Cut-Over to Bell Service, by Stuart H. Brown	3	4	100
New Monterey Hotel			
At Asbury Park, Telephone Equipment of	3	8	197
Newspaper			
Man and the Telephone, The, by Walter R. Selth	2	8	196
Clippings, Summary of	1	1	15
***New Switchboard**			
At the Lafayette Hotel, Buffalo	1	7	173
Newtown, L. I.	2	5	132
	3	3	78
	4	6	170
New York,			
Past and Present, by F. H. Bethell—(Paper read at Meeting of the Telephone Society of N. Y., March 18, 1913)	4	4	104
*Police Department, Evolution of the Telephone Systems of the, by J. N. C. Graham. Summary of paper read before the 119th meeting of the N. Y. Tel. Society, May 17	1	1	4
*Telephone Co. Awarded Two Medals at the International Exposition of Safety and Sanitation	4	12	322
Telephone Co. Employees' Mutual Benefit Society, Third Annual Meeting of	1	6	140
And N. J. Tel. Co. Employees' Mutual Benefit Society, Report of the Tenth Annual Meeting of the	1	5	116
*Telephone Co., History of, by Herbert N. Casson	2	1	4
	2	2	25
	2	3	49
*City, The Beginning of Telephoning in, by Herbert N. Casson	1	5	97
	1	6	129
	1	7	163
***New Way**			
Of Fastening Cords in Switchboards	1	1	22
New Word			
For Telephone Message (Ed.)	1	7	169
	2	1	13
	2	2	38
Niagara Falls, N. Y.	1	3	70
	2	8	206
	3	7	176
	4	11	308
***Night Order**			
Writing Force, by O. C. Lyon	4	3	83
North Exchange,			
Buffalo	3	2	52
	3	3	76
***North River,**			
Laying a Submarine Cable Under the	2	10–11	241
North Shore, L. I.	1	2	43
North Tonawanda, N. Y.	4	11	309
	4	12	334
*New Commercial Office in, by E. H. Gailor	4	8	210
North Westchester			
News	1	1	18
***Northern New York,**			
The Introduction of the Telephone Into, by W. D. Hanchette	2	5	111
Norwich, N. Y.	1	4	91
***Notes**			
From the Secretary and Treasurer, by Ford Huntington	3	1	4
From the Field	1	7	182
Novel			
Uses of the Telephone (Ed.)	3	9	202
*Telephone Booth, A, by David Deering	2	4	85
***Nursemaid,**			
The Telephone as, from *The Strand Magazine*	3	9	224
Nyack, N. Y.	1	5	128
	1	6	155
*Telephone Service in, by A. S. Rossborough	3	9	210

O

Obituary,			
Stewart, Wm. McClintock	1	5	115
Cushing, Michael Francis	1	5	116
Sergeant, John Albert	1	6	139
Gerathy, Lillian Augustine	2	2	41
Arnold, Gertrude	2	3	62
Marsh, J. H.	2	5	123
Rowell, Verna B.	2	5	123
Eastabrook, Wm. N.	2	7	174
French, Orrin F.	2	7	174
Sargent, W. D. (Ed.)	2	8	197
Hahn, Byron G.	3	10	241
Ferris, Robert Murray	4	8	205
Oborne, E. A.,			
The Co-operative Spirit—Highest Evidence of Loyalty	4	8	209
*Flatbush	4	4	111
***Obsolete Telephone Directories**			
Of N. Y. City	2	9	218
O'Donnell, Mrs. R. B.,			
A Square Deal	2	2	40
O'Hea, J. F.,			
Versatility of Our Salesmen	4	9	247
O'Hea, W. J.,			
*First Wholesale Trade Excursion of Rochester a Big Success	4	7	194
***Oil Catchers**			
Solve a Wire Chief's Problem, by R. A. Parisian	4	10	276
***Oklahoma R. R. Station,**			
Scene at an Old, by Francis Wm. Vreeland	4	11	317
Olean, N. Y.	1	4	92
	3	10	243
Olmsted, John B.			
On His Retirement from the Public Service Commission, Impressions of—What Regulation Taught One Regulator	4	4	107
One System			
Or Two?	2	8	185
Oneida, N. Y.	1	1	13
	1	4	91
Onondaga Hotel,			
Syracuse, N. Y.	1	1	13
Opening of a New Commercial Office,			
Some Reflections Upon the	1	5	117
Opera,			
Telephone and Grand (Ed.)	4	3	66
Operator,			
Answering Back the (Ed.)	4	9	233
The Telephone, by C. H. Hartzell	4	7	193
The Art of Expression as Applied to the Work of the Telephone, by J. L. Turner	2	10–11	236
*The Telephone, by H. N. Foster, Supt. of Traffic, Chicago Tel. Co.	1	2	32
***Operators'**			
Rooms in Albany, The New, by R. S. Williams	2	12	272
Coolness at Patchogue Fire	2	4	103
*Dress Dolls for Orphans, by L. M. Smith	3	2	44
*And Linemen Bravely Face Death by Tornado, Fire and Flood	4	4	95
*Loyal, Remain on Duty Under Trying Conditions	1	4	83
*Telephone	1	5	108
*Of Bell System at Buffalo	3	7	164
Alert and Loyal	3	8	182
Consideration for (Ed.)	3	8	177
*Telephone Sets—Old and New	3	9	214
Opportunity			
And Our Responsibility, Our (Ed.)	3	6	141
Sonnet on (Poem), by John Jas. Ingalls	1	1	23
(Poem), by Judge Walter Malone	1	1	23
Orange, N. J.,			
Addition to Building at	2	10–11	255
	3	5	128
	4	6	170
Orators,			
Hints to	3	3	67

Digitized by Google

	Vol.	No.	Page
Orchard Central Office,			
Manhattan	2	7	184
Ordering			
Groceries by Telephone	3	4	93
By Telephone (Editorial)	1	7	169
*By Telephone	1	7	175
By Telephone—Benefits Both Merchants and Customers	3	8	193
Order			
Lost by Bad Telephone Manners	4	11	289
*Writing Force, Night, by O. C. Lyon	4	3	83
***Orders,**			
Telephone Your, by Geo. H. Bernard	2	5	129
*For Drugs, Telephone, by F. O. Ludlow	2	5	129
*Telephone Your	1	7	175
*Telephone Your, by W. H. Schuyler	2	3	68
Organization Changes	1	1	24
	1	2	47
	2	2	48
	2	3	70
	2	4	88
	2	5	125
	2	6	147
	2	7	174
	2	8	192
	2	9	220
	2	10-11	244
	2	12	280
	3	1	14
	3	2	44
	3	3	70
	3	6	152
	3	5	148
	3	7	175
	3	8	200
	3	9	222
	3	10	241
	3	11	272
	3	12	284
	4	1	36
	4	2	59
	4	3	87
	4	4	118
	4	5	143
	4	6	168
	4	7	193
	4	8	209
	4	9	256
	4	10	263
	4	11	309
***Ormsbee, A. F.,**			
The Use of the Telephone in Urban Railroad Operation	1	7	161
***Orphans of N. Y. City,**			
Outing of, by S. W. Syers	3	7	167
Orr, J. E.,			
*N. Y. Tel. Co.'s Float in West Hoboken Industrial Parade	2	6	142
Ossining Operator			
During the Big Prison Fire at Sing Sing, Impressions of an	4	9	245
Oswego, N. Y.	1	6	155
Our Town Belle,			
(Poem). by R. W. Hains	3	1	18
***Outline of Plant Engineering**			
As It Affects the Commercial Department, A Brief, by R. H. Burcher	2	4	92
Overstocking,			
(Ed.)	2	10–11	243
Owego, N. Y.	1	7	181
	2	1	24
Oyster Bay, L. I.	4	4	118
	4	11	307

P

***Packard Motor Car Co.**			
And the Telephone	2	4	104
***Panama Canal,**			
The Telephone and the, by W. F. Henkel	3	11	254
Panama-Pacific			
International Exposition at San Francisco	4	7	191
***Paper,**			
From a Roll of—To a Telephone Directory	3	12	296
***Parade,**			
Jersey City's Industrial	1	6	148
*Float of N. Y. Tel. Co. in West Hoboken Industrial, by J. E. Orr	2	6	142
Parcels Post			
And the Telephone, The (Ed.)	3	11	249
***Paris,**			
A Day With the Telephone People in, by James H. Collins	2	6	137
Parisian, R. A.,			
*Oil Catchers Solve a Wire Chief's Problem	4	10	276
The Deskman	2	10–11	253
Park Ridge, N. J.	4	12	334
Partial Summary of Development Work,			
Planned or Under Way	1	1	12
	1	2	42
	1	3	70
	1	4	91
	1	5	127
	1	6	153
	1	7	179
	2	1	22
	2	2	46
	2	3	68
	2	5	131
	2	6	157
	*2	7	183
	2	8	206
	2	9	231
	2	10–11	256
	3	3	78
	3	5	127
	3	7	175
	3	9	223
	3	10	243
	3	11	271
	4	1	31
	4	3	88
	4	4	118
	4	6	170
	4	8	217
	4	10	284
	4	11	307
	4	12	334
***Park Ridge, N. J.,**			
Unique Advertising	2	3	67
Parker, David B.,			
Reminiscences by (Ed.)	3	4	92
Passaic, N. J.	4	10	284
Passing the 100,000 Station Mark			
In New Jersey Division	1	7	173
Past			
And the Future of the Telephone, The, by T. P. Sylvan	2	2	28
Patchogue Fire,			
Operators' Coolness at	2	4	103
Paterson, N. J.,			
District	1	3	70
	2	1	24
	3	11	271
	4	11	307
*Cable Construction Gang at	4	3	86
Patterson, N. Y.	3	3	79
Peapack, N. J.	2	5	133
Pearl River, N. Y.	3	9	224
Peekskill Operators			
Popular, by Geo. F. Lillis	3	4	99
***Pennsylvania Tunnels**			
And Terminal in New York City, The Telephone Equipment of the New	1	5	101
***Pennsylvania Subway**			
Under the East River, Laying a Telephone Cable Through	2	9	226
Pension			
Plan, More Than a (Ed.)	3	12	273
Plan, Mr. Vail's Statement to Employees of the A. T. & T. Co. Regarding	4	1	1
Fund Now Operative	4	1	37
Pensions,			
Disability Benefits and Insurance, Plan for Employees'	3	12	275
Pentz, H. H.,			
Telephone Man Gives Talk to Bank Employees on "Telephone Courtesy"	4	11	320
Pere Marquette Magazine,			
The Greatest Time Saver	4	10	275
Person and a Personality,			
A, Reprinted from *Iron Age-Hardware*	3	5	121
Personal Hygiene,			
By Dr. Alvah H. Doty	4	6	164

Digitized by Google

	Vol.	No.	Page
Persistency			
Will Get Business, One More Proof that....	1	4	93
***Phantom Circuits**	2	5	134
Philadelphia			
Telephone Society	4	6	161
***Philip, B.,**			
Station Maintenance	1	3	63
Philmont, N. Y.	4	3	88
Piano Business			
And the Telephone—*Musical Courier Extra*..	4	8	220
***Picnic**			
Of the Revenue Accounting Department, The First (Central Division)	4	10	272
Pictured Story			
Of the Telephone Girl, The (Lecture by H. N. Casson)	2	3	65
Pictures			
Tell the Biography of the Telephone	4	11	305
Wanted (Ed.)	4	7	178
Pieper, Henry,			
Telephone Courtesy	2	4	91
Pilger, A. C.,			
100 Per Cent Efficient	3	10	242
Pioneer,			
Some Interesting Reminiscences of a Telephone, by E. W. Bigler	4	7	192
***Pioneers,**			
One of the, by Max Reid Bradt	4	7	187
Of America, Telephone	2	1	14
	2	2	36
	2	9	217
First Annual Convention	2	12	279
	3	3	68
	3	8	200
	3	10	234
(Ed.)	3	11	249
(Ed.)	3	12	274
*2nd Annual Convention	3	12	291
	4	7	178
	4	9	246
3rd Annual Convention	4	11	305
Piping Rock Country Club,			
By F. E. Meggs	3	10	234
Plainfield, N. J.	3	10	243
***Plans and Aims**			
Of the Accounting Department—(Paper read before the Telephone Society of New York, June 20, 1911), by P. O. Coffin..	2	7	161
***Plant**			
Accounting Club, Annual Dinner of the	3	1	22
Accounting Department Social Club	2	1	17
*Department, The, by J. A. Stewart	3	1	6
Department of Manhattan-Bronx, by Burch Foraker	4	1	4
Department of Westchester	4	1	7
Department of New Jersey, by I. J. Thorp..	4	1	12
Department of Hudson Division, by E. H. Powley	4	1	16
Department of Central Division, by F. J. Chesterman	4	1	19
Department of L. I. Division, by P. D. Honeyman	4	1	10
Department in the Western Division Assists in Promoting Business, How the	3	7	158
*In the Western Division, the Upbuilding of.	2	9	210
Department of Western Division, by P. O. Jacobs	4	1	22
*Engineering as It Affects the Commercial Department, A Brief Outline of, by R. H. Burcher	2	4	92
*Inspectors—The "Troublemen" Who Make Things Right, by W. Kirkbright	4	10	277
Man on the Job, The (Ed.)	4	3	65
Man on the Job, The—A Day With the Plant Department on Long Island	4	3	70
Plattsburg, N. Y.,			
Inter-Departmental Dinner in, by E. H. Schuyler	2	5	128
Plaza Central Office,			
Manhattan	2	1	24
Plaza-Lenox Exchange Districts,			
By Messrs. John Buehl, E. E. Sievers and Arthur F. Loomis	4	6	152
Pleasant Valley, N. Y.	3	3	79
Plumbing,			
Telephone Detects Defective, by W. F. Heep	3	5	122
***Police Department,**			
Evolution of the Telephone Systems of the New York, by J. N. C. Graham. Summary of paper read before the 119th Meeting of the N. Y. Tel. Society, May 17	1	1	4
Police Telephone System	1	5	127
For the Village of Freeport, Long Island, New, by C. A. Ryder	3	12	287
Politeness,			
Points and Pointers on (Ed.)	3	5	115
More, by B. A. Crawford	4	5	129
Pollock, J. R.,			
Commercial Department of Manhattan-Bronx	4	1	3
Polyglot	2	12	271
Pompton Lakes, N. J.	2	8	206
Pope, Henry W.,			
*The Early History of the Albany, N. Y., Exchange	2	2	34
***Port Jervis**			
Telephone Co.	2	12	274
***Portable Telephones**			
At Bootblack Stands	3	9	203
Porter,			
The P. R. R.	2	10–11	250
Port Washington, L. I.	1	1	12
Post, S. C.,			
An Extension Telephone	2	2	46
***Potato Crop**			
Of Monmouth County, N. J., and the Telephone, by Wm. D. Martin	1	4	89
Poughkeepsie, N. Y.	1	1	13
	2	3	69
	3	5	128
	4	1	31
	4	3	88
Eagle, 1877, Reproduction from	2	8	204
***Power Trucks**			
In Building and Maintaining Telephone Plant, The Use of, by A. W. Allen	3	4	82
Powley, E. H.,			
Plant Department of Hudson Division	4	1	16
Practical Co-operation	3	7	158
	3	8	200
Pray, W.,			
*Brooklyn Garage Outing	4	10	274
Price, D. C.,			
Change of C. O. Batteries at Morningside...	4	7	193
Private Cars,			
Lehigh Valley, Telephones on	1	3	62
Private Switchboard Attendants,			
The Importance of Efficient	2	2	39
Prize for High School Students,			
Glen Telephone Co. Offers	2	3	62
	2	7	172
	2	7	178
***Produce Exchange**			
Gives a Ball, N. Y., by E. Rossman	2	7	179
Progress			
Made by the New York Tel. Co. Since 1892, A Short Review of the—(Paper read at Meeting of the Telephone Society of N. Y., Oct. 15, 1912), by J. A. Stewart	3	12	277
*A Medal of	4	5	140
Proposed Organization			
Of Metropolitan Revenue Supervisory Force	3	1	21
Prospect Central Office,			
Brooklyn	4	10	285
Prospect to the Commercial Department,			
The Value of a, by S. V. Gibson	2	10–11	249
Prospects Turned Over			
To Commercial Dept. by Plant Dept. at Rochester, N. Y.	4	6	151
Protecting Crops			
By Telephone	4	9	252
Protecting the Service,			
Address by F. H. Bethell Before the Telephone Society of N. Y.	4	5	127
Provisions			
Of the Public Service Commissions Law of the State of New York and the Public Utilities Act of the State of New Jersey so far as they affect Telephone Corporations, Synopsis of the	1	4	73
Psychology of the Telegraph,			
The, by S. M. Williams	1	1	2

Digitized by Google

	Vol.	No.	Page
Public and the Bell System, Mutual Relations and Interests of—Statement by Theo. N. Vail	4	9	242
Public Always Helps When the Public Knows How, The	3	9	212
The Employee and the (Ed.)	3	2	43
Opinion—Extract from Mr. Vail's Annual Report for 1911 (Ed.)	4	9	233
*Opinion, by Theo. N. Vail	3	1	13
Ownership of Telephones on the Continent of Europe, by A. N. Holcombe, Ph.D., Telephone Competition	2	6	155
Service Commissions, Our Relations with, by T. P. Sylvan	3	1	2
Service Commissioner Olmsted, His Impressions on Retirement from the—What Regulation Taught One Regulator	4	4	107
Service Commissions Law of the State of New York and the Public Utilities Act of the State of New Jersey, so far as they affect Telephone Corporations, Synopsis of the Provisions of the	1	4	73
*Service Corporation of New Jersey, Telephone System of, by H. B. Fenn	1	3	50
Speaking Made Easy (Ed.)	4	5	126
*Station in a Lunch Wagon, by Mark Mellor	2	6	144
*Telephones at the Heart of Coney Island	2	8	199
*Telephone Department, The, by Herbert G. Greene	2	9	223
*Telephone Sign on Waterfront at Haverstraw, N. Y., by A. S. Rossborough	4	6	173
Utilities and Public Policy—Summary of Article by T. N. Vail	4	5	138
Utilities Act of the State of New Jersey and the Public Service Commissions Law of the State of New York, so far as they affect Telephone Corporations—Synopsis of Provisions of the	1	4	73
***Publicity Trains,** Telephone Equipment of Troy and Buffalo	1	1	10

Q

Qualifications for Membership In the Telephone Pioneers of America (Ed.)	4	7	178
Queries and Answers	1	1	21
	1	2	46
	1	3	72
	1	4	94
	1	7	177
	2	1	14
	2	2	39
	2	10–11	245
	2	12	269
Column, Our (Ed.)	1	6	139
	1	7	170

R

Race, Reported by Telephone, Motor Boat	1	4	78
Rahway, N. J.	2	9	232
	4	8	218
Operators, Loyalty of, by Geo. W. Beebe	4	8	226
Railway Telephone Superintendents, Association of	4	7	179
*Superintendents of Telegraph Meets, Association of	3	7	171
Superintendents of Telegraph, Convention of the Association of (Boston, June 26-30, 1911)	2	7	175
*Waiting Room, Telephone Equipment in Schenectady, by F. M. Cozzens	4	11	316
Service, Western Electric Composite Telephone and Telegraph System for	1	5	122
***Railroad,** (Pa.) Telephone Equipment of the New Tunnels and Terminal in New York City.	1	5	101
*Operation, The Use of the Telephone in Urban, by A. F. Ormsbee	1	7	161
***Railroads,** A New System of Nerves for	3	1	31
*Telephones on	3	1	31
Random Notes	2	1	21
***Raritan,** From the Banks of the Old, by Stewart Crowell	3	3	64
***Recent Advances** In Transmission Efficiency of Long Distance Circuits, by B. Gherardi	2	5	105
***Recess Club,** The, by Gilbert C. Tompkins	3	1	19
***Record of Growth,** Keeping, by F. W. Warnke	4	7	189
Rector Central Office, Manhattan	1	7	181
Red Bank, N. J.	2	3	79
***Reduction,** New York City Interborough Toll Rate	4	12	264
Telephone Rate—*N. Y. Times*, 7-7-13, Editorial	4	7	177
Reese, Wm. F., Telephone Service in Hotel Biltmore	3	8	196
A Satisfied Subscriber	3	12	276
Referendum in Watertown Results in One System	2	3	60
Regulate Commerce, The Act to, as Amended, 1910, How Telephone Companies Engaged in Interstate Business are Affected by	1	6	157
Regulation Taught One Regulator, What—Impressions of Hon. John B. Olmsted on His Retirement as a Public Service Commissioner	4	4	107
Relation of the Connecting Company With the Bell, by Geo. W. Green	2	5	117
Reminiscences Of a Telephone Pioneer, Some Interesting, by E. W. Bigler	4	7	192
By C. F. Kelleher	2	1	21
Of an Albany Operator, by Wm. J. White	4	10	275
An Interesting, by F. C. Mason	3	1	15
***Repair Shop** Outing to Glen Island	4	7	199
Repetition, Acknowledging Operator's, by J. L. Turner	4	9	256
Reports of the American Tel. & Tel. Co., Annual, 1910	2	3	71
1911, Excerpts from Report	3	4	81
(Ed.)	3	5	115
1912, Excerpts from Report	4	4	110
(Ed.)	4	4	93
Re-Routing, How Traffic in Westchester Division, Maintained Service by, by O. G. MacKnight	4	1	37
Rescue, The Telephone to the, (Ed.)	4	10	262
The Telephone to the	3	5	117
***Resorts,** Summer, Popularity and Bell Telephone Service March Hand in Hand	3	8	183
Responsibilities to the Public Of the New York Telephone Co. (Ed.)	2	3	61
Responsibility, Individual—*Pacific Telephone Magazine*	4	12	344
Restoration of Telephone Service, Prompt, by A. E. Doner	4	12	331
Results From Use of the Telephone, Getting	4	9	238
***Return of Frank H. Bethell,** The	2	1	14
***Returns,** Telephoning Election	1	6	150
Reunion Of the Revenue Accounting Offices	3	2	46
***Revenue** Accounting Department, Central Division, The First Picnic of the	4	10	272
Supervisory Force, Proposed Organization of Metropolitan	3	1	21
Supervisory Force Meet	3	3	70
	3	4	101
	3	5	123
	4	3	89
Accounting Offices, Reunion of the	3	2	46
***Revere, Paul,** The Passing of Romance	2	10–11	250
Review Of the Progress Made by the New York Tel. Co. Since 1892, A Short—(Paper read at Meeting of the Telephone Society of N. Y., Oct. 15, 1912), by J. A. Stewart	3	12	277

Digitized by Google

	Vol.	No.	Page
Review			
And a Forecast, A (Ed.)	3	1	13
Telephone, Common Meeting Place of Company's Employees (Ed.)	1	4	87
Reynolds, A. S.,			
*The Big Fire at Liberty, N. Y.	4	7	201
Richards, Wm. J.,			
*New Offices in Auburn, N. Y.	2	5	131
Richmond Hill, L. I.	1	1	12
	2	7	183
	3	3	78
	3	9	224
Telephone Talk Delivered by R. J. Wollmuth at	1	1	18
***Richmond Lighthouse,**			
Canvass for Service at, by L. M. Thomas	3	9	213
Ridgewood, N. J.	2	1	24
Rifle Team,			
New York Tel. Men on 74th Championship—Buffalo, by E. V. Ednie	4	10	279
Right,			
Do It (Ed.)	2	2	37
***Right-of-Way Men**			
"Get Together"	2	10–11	254
***"Ring Up" Plan**			
Of Buffalo Commercial Office	2	5	122
***Ringing**			
Circuit, Traveling Model of an Ordinary	4	9	246
Power over 35 Miles of Trunk Line, Supplying, by J. F. Carroll, Jr	3	3	66
Riverhead, L. I.	3	9	223
***Riverside**			
Commercial Office, by W. A. Dalton	3	10	235
District, Manhattan	1	1	12
***Roads and the Telephone,**			
Good	4	11	313
Rochester, N. Y.	1	3	71
	1	5	128
	2	1	23
	2	3	69
	2	5	133
*And Buffalo Advertising Clubs Hold Joint Sessions by Bell Telephone	2	3	63
*Baseball Park, Telephone Equipment at the, by W. P. Chapin	2	6	152
*First Wholesale Trade Excursion a Big Success, by W. J. O'Hea	4	7	194
Happened, How East—A New Village on the Bell Telephone Map, by G. S. Lord	4	8	212
*Industrial Exposition, by B. F. Gibson	4	11	320
*Window Display Week in	2	12	276
Rockland County, N. Y.	2	6	158
*Agricultural and Horticultural Association, Exhibit at	2	9	230
Rockville Centre, L. I.	1	1	12
	2	7	183
	3	11	271
***Romance,**			
The Passing of	2	10–11	250
Telephone, by E. G. Anderson	2	6	160
Ross, Geo. W.,			
Canvassing Difficulties	3	12	301
Rossborough, A. S.,			
Co-operation in the Westchester Division	4	12	341
*Public Telephone Sign on Waterfront at Haverstraw, N. Y.	4	6	173
"Stony Point" Exchange	4	6	169
*Nyack, Telephone Service in	3	9	210
Rossman, E.,			
*N. Y. Produce Exchange Gives a Ball	2	7	179
Routine Complaint Report			
For November, 1913, in Central Division	4	12	321
Rules,			
It's Against the—*Mountain States Monitor*	3	6	145
Russell, C. T.,			
*Legal Department, The	3	1	5
Rutherford, N. J.	1	2	42
Ryder, C. A.,			
*New Police Telephone System for the Village of Freeport, L. I.	3	12	287
Rye Central Office			
Struck by Lightning	2	9	218

S

	Vol.	No.	Page
***Saddle River, N. J.,**			
Central Office, by M. J. Maloney	4	7	190
***Safety and Sanitation,**			
Two Medals Awarded the New York Tel. Co. at the International Exposition of	4	12	322
Sag Harbor, L. I.	2	2	46
Salamanca, N. Y.	1	1	13
Salesman			
Uses Telephone in Business	3	6	148
Salesmen,			
Versatility of Our, by J. F. O'Hea	4	9	247
Salesmanship			
In *System*, by S. M. Greer	4	10	263
Some Incidents of, by Messrs. H. Bell, Wm. Miller, L. N. Brant, and G. H. Howell	3	2	54
Good and Indifferent (Ed.)	3	7	163
San Francisco,			
The Big Show in	4	7	191
Santa Claus			
And the Bell Telephone in a Window Display	3	2	49
Talking to, by Telephone, by J. C. Dahl	3	2	49
Is There a (Ed.)	2	12	267
Saranac Lake, N. Y.	1	1	13
Sargent, W. D.,			
Death of (Ed.)	2	8	197
Satisfied Subscriber,			
A, by Wm. F. Reese	3	12	276
Saving a Station,			
By Miss A. W. Wellstood	4	7	201
Scarsdale, N. Y.	2	5	132
	2	10–11	256
Schenectady, N. Y.	1	4	92
	2	5	132
	4	12	334
*Its New Joint Telephone and Telegraph Office, by F. M. Cozzens	3	6	142
*Railway Waiting Room, Telephone Equipment in, by F. M. Cozzens	4	11	316
*Telephone System of the General Electric Co. at, by F. M. Cozzens	1	2	36
School Houses,			
Country, by J. J. Malone	2	1	11
***School, The Telephone,**			
By Miss K. C. Jones	2	3	55
Schrader, F. B.,			
*Jersey City District	4	2	54
Schroder, F. B.,			
The Bayonne Fire	3	2	42
Schultz, H. J.,			
Traffic Department of Manhattan-Bronx	4	1	5
Schuyler, E. H.,			
Inter-Departmental Dinner in Plattsburg, N. Y.	2	5	128
Schuyler Switchboard,			
Manhattan	1	3	70
Schuyler, W. H.,			
*Telephone Your Orders	2	3	68
Telephone Booth at Clinton County Fair	2	9	222
Schuylerville (N. Y.) Fire,			
Service of Mrs. Halle at	4	7	201
Sea Cliff, L. I.	4	8	217
Seal,			
The Significance of the Bell	1	1	3
Sedgwick, A. V.,			
Mount Vernon's Great White Way	4	11	317
Serviss, Garrett P.,			
The World Uses 12,318,000 Telephones—N. Y. *Evening Journal*	4	12	335
***Selector,**			
New, for Train Dispatching, Western Electric Engineers Develop	1	2	47
Self-Help Corporation,			
A (Editorial)	2	3	61
Self-Receipting Bill,			
The (Ed.)	4	5	126
Selling			
A Telephone, by J. O. Martin	1	5	123
Telephone Directory Advertising (Ed.)	1	2	35
Selth, Walter R.,			
The Newspaper Man and the Telephone	2	8	196
***Seneca Building, Buffalo, N. Y.,**			
Proposed	2	9	229
Switchboard in 1888	4	8	226
Seneca Falls, N. Y.	1	7	180
*Interesting Features of	4	2	62
Sermon,			
The Telephone, by E. N. Bull	4	9	256

Digitized by Google

	Vol.	No.	Page
Service			
And Courtesy (Ed.)	3	7	163
Extending the (Ed.)	4	10	261
Of the New York Telephone Co. (Ed.)	3	5	115
Protecting the—Address by F. H. Bethell before the Telephone Society of N. Y.	4	5	127
Telephone, Value of, in Case of Fire	1	2	29
Telephone (Ed.)	2	8	198
Telephone, Westfield (N. J.) *Leader*	4	5	140
In the Western Division, Extending the	4	3	86
The Never Ceasing (Ed.)	4	1	2
***Sets,**			
Operators' Telephone—Old and New	3	9	214
Sexsmith, W. C.,			
Binghamton	4	9	250
Seymour, A. T.,			
*Miniature Telephone Plant Exhibit	3	7	172
Shallcross, C. F.,			
Telephone Service in the Fire Insurance Business—The Business of a Foreign Insurance Agency	4	3	67
Sheahan, M. T.,			
When You "Telephone" To-day (Poem)	3	1	23
Shearer, H. H.,			
*Looking Ahead at Glen Cove	4	10	282
***Shelter Island,**			
Laying Submarine Cable between Shelter Island and North Haven	3	8	194
Shellworth, Wm. F.,			
*A Glimpse of Canada	4	11	320
Sherwood, E. F.,			
*Traffic Department, The	3	1	7
*Efficiency in Traffic Work (Paper Read at meeting of the Telephone Society of New York, March 22, 1911)	2	4	76
Shilch, N. J.,			
Constructing an Aerial Line near	4	1	40
Shoes and Trousers,			
The Telephone versus (Ed.)	3	2	43
Shopping by Telephone,			
Advantages of (Ed.)	3	9	201
The Latest in	4	4	94
Shoreham, L. I.	2	7	183
Sievers, E. E.,			
*Plaza-Lenox Exchange Districts	4	6	152
Sign			
Of the Times, The (Ed.)	2	10-11	243
*On Water Front, Telephone	3	12	282
*Board, What's on the—From Life	3	10	238
Significance			
Of the Bell Seal, The	1	1	3
Silver Creek			
And Forestville (N. Y.), Telephone Service Extended Into, by L. J. Davey	4	12	342
Sing Sing Prison Fire,			
Impressions of an Ossining Operator During	4	9	245
Smile,			
The All-Conquering—*N. Y. Tribune* Editorial	4	9	245
Smith, L. M.,			
*Operators Dress Dolls for Orphans	3	2	44
Smith, Will H.,			
Accident at Canandaigua	3	3	66
***Snow Belt,**			
In the, by Robert M. Gillespie	3	3	65
Social			
Club, Plant Accounting Department	2	1	17
And Efficiency Club Organized in Buffalo	4	10	271
*Uses of the Telephone, by Cromwell Childe	4	9	235
Soliloquy of a Telephone,			
The, by Harry Beaudouin	3	6	140
Somerville, N. J.	1	2	42
Song			
Heard Over the Telephone	1	4	96
Of the "Tels," The (Poem)	2	10-11	251
Songs,			
Start a Collection of Telephone (Ed.)	2	6	147
Sonnet			
On Opportunity (Poem), by John Jas. Ingalls	1	1	23
Sound,			
Heard Twice the Same, by L. E. Bailey	3	1	18
South Central Office,			
New (Brooklyn)	4	11	307
South Orange, N. J.	2	3	69
***South Pole,**			
Telephone to Assist in Discovering	1	3	68
South Shore, L. I.	1	2	43
	2	1	24
Southampton, L. I.	2	2	47
***Southern Manhattan**			
Installation Force, The May Rush With the, by J. A. Lynch	4	6	162
***Spain,**			
Some Talk About Telephony in, by K. Bretscher	4	7	180
***Span Across Gunnison River, Colorado,**			
Safeguards Telephone Service, Long	4	9	259
Spaulding, C. A.,			
Commercial Department of Western Division	4	1	22
	3	10	241
Spaulding, W. R.,			
The Lineman	3	5	126
Speed			
As a Lubricant (Ed.)	2	1	13
Spirit,			
The Christmas (Ed.)	4	12	321
Of the Telephone, The (Ed.)	4	1	2
Square Deal,			
A, by Mrs. R. B. O'Donnell	2	2	40
Stadler Hotel, Buffalo, N. Y.	1	1	13
*Installs 500 Telephone Stations	1	4	82
***Stage,**			
The Telephone on the	2	10-11	252
*The Telephone on the, by David Deering	1	3	54
The Telephone on the—"The Argyle Case"	4	5	148
Stagg District,			
Brooklyn	4	11	308
Standard Wiring Plans			
For Subscribers' Stations	1	2	27
Stanfordville, N. Y.	1	6	153
Stanton, Frank L.,			
Keep A-Goin' (Poem)	2	1	20
***State Fair**			
At Syracuse, The	3	8	179
At Syracuse and Convention of the National Progressive Party—Telephone Service at	3	10	233
State Educational Building			
At Albany, Telephone Equipment in	2	12	270
Staten Island	4	1	31
Fair, The Telephone at the, by E. W. Wollmuth	2	9	222
***Station Maintenance,**			
By B. Philip	1	3	63
Stationery	3	8	182
***Statistics,**			
Telephone, of the World	1	2	25
*The Value of Trouble, by M. Greene	1	7	167
*Of the World, Telephone	3	7	153
***Steamer St. Paul**			
Grounded Off Long Branch, by W. H. Hall	4	1	6
***Steamships,**			
Telephones on	3	11	262
*Telephones on	3	9	207
***Stenographers**			
Take Dictation by Telephone, by S. E. Lester	3	8	181
Stenographic Bureaus,			
Centralized	1	2	30
	1	3	69
	2	1	12
Stephan, H. C.,			
Buffalo Always Gets the Business	3	9	218
Stern Brothers'			
Private Switchboard	2	12	270
Stevens, H. Frederick	3	12	284
Stewart, J. A.,			
A Short Review of the Progress Made by the New York Telephone Company Since 1892 (Paper read at Meeting of the Telephone Society of N. Y., Oct. 15, 1912)	3	12	277
*Plant Department, The	3	1	6
***St. Paul**			
Grounded Off Long Branch, by W. H. Hall	4	1	6
St. Bernard,			
Telephones of	2	5	114
Stockwell, C. L.,			
*Telephone Equipment of Gedney Farms Hotel, White Plains, N. Y.	4	6	171
Stonaher, E. R.,			
The Tupper Lake Fire	3	2	41
Stony Point, N. Y.	3	11	271
Exchange, by A. S. Rossborough	4	6	169
Storage Batteries,			
Indications of Trouble, by J. R. Lane	4	7	200

Digitized by Google

	Vol.	No.	Page
***Storm,**			
Western New York Has Worst in Years....	4	1	29
Subscribers' Stations,			
Standard Wiring Plans for.....	1	2	27
Subscribers at Medina, N. Y.,			
Campaign for	3	4	101
***Submarine**			
Cable Under the North River, Laying a.....	2	10–11	241
*Telephone Cable Between Shelter Island and North Haven, Laying.....	3	8	194
*New Cable Between Tarrytown and Nyack, Interesting Facts About Laying a, by R. F. Swayze.....	4	12	329
*Cable in Buffalo Harbor, Laying.....	4	7	191
***Suburban**			
Long Island Construction.....	3	11	253
***Subway Construction,**			
At Lexington Ave. and 87th St., Manhattan, Cave-in During	3	4	94
Success and Efficiency			
As Affecting Capital Values and Service Rates of Telephone Companies (Ed.).	2	2	37
Successful Ones			
Attract Attention, The To-Be (Ed.).....	4	8	206
Suggestions	1	2	45
	1	4	93
	1	7	178
	2	1	16
	2	3	62
***Summary**			
Of Paper by F. C. Congdon, Read before the 120th Meeting of the N. Y. Tel. Society on Maintenance	1	2	39
Of Newspaper Clippings.....	1	1	15
***Summer Resorts,**			
Popularity and Bell Telephone Service March Hand in Hand.....	3	8	183
Summit, N. J......	3	3	79
Supervision,			
Efficiency in, by E. C. Michell.....	3	2	36
Supervisory Force,			
Proposed Organization of Metropolitan Revenue	3	1	21
***Supplying N. Y. City**			
With Telephone Directories.....	1	6	145
Swayze, R. F.,			
*Interesting Facts About Laying a Submarine New Cable Between Tarrytown and Nyack	4	12	329
Sweeney, Miss Irene M.,			
Don't Say "Hello".....	2	2	42
***Switchboard**			
In Seneca Bldg., Buffalo, N. Y., in 1888	4	8	226
Syers, S. W.,			
*Outing of the Orphans of N. Y. City.....	3	7	167
Sylvan, T. P.,			
The Past and the Future of the Telephone...	2	2	28
*Our Relations with Public Service Commissions	3	1	2
Synopsis			
Of the Provisions of the Public Service Commissions Law of the State of New York and the Public Utilities Act of the State of New Jersey so far as they affect Telephone Corporations.....	1	4	73
Syracuse, N. Y......	1	5	128
	2	1	22
*Automobile Show, The Bell Exhibit at, by H. M. Warne.....	2	5	126
*Historical Sketch of the "Central City" and the Importance of the Bell System in Its Business and Social Life, by L. L. Cleaves	3	6	135
News	1	1	17
*State Fair	3	8	179
State Fair and Convention of the National Progressive Party—Telephone Service at	3	10	233
Systems,			
Two or One?.....	2	8	185
***System,**			
An Underground Telephone, by I. J. Thorp.	1	4	75

T

Tabrah, J.,			
Buffalo Night Force, Yesterday and Today..	4	12	341
Taft, Pres.,			
Uses Long Distance Telephone—*N. Y. Tribune*	3	6	147
*Speaks Over Long Distance to Associated Press and American Newspaper Publishers' Association	3	5	112
Talk,			
Telephone, Delivered at Richmond Hill, by R. J. Wollmuth.....	1	1	18
Tardy,			
Lieutenant Commander of the Brooklyn Navy Yard Directs the Building of a Battleship by Telephone.....	4	6	166
Telaudis Club	4	3	90
Telautograph,			
The Telephone and the.....	4	12	345
Telegraph,			
The Psychology of the, by S. M. Williams..	1	1	2
*Office Installed in White Plains Court House, by W. A. Bryant.....	3	8	198
Telegram by Telephone			
Takes 36 Minutes.....	3	2	44
Telegrams by Telephone.....	1	3	56
	2	10–11	253
	*2	9	221
	4	11	306
(Ed.)	2	9	219
Telephone			
Directory Advertising, Selling (Ed.).....	1	2	35
Directory for New Jersey, A New Style of..	4	2	61
*Equipment of Troy and Buffalo Publicity Trains	1	1	10
*Exhibits and Their Purposes.....	2	10–11	239
Game, The, by Annie Miller Melick in the *Ladies' Home Journal*.....	4	9	253
*Industry of the World.....	1	2	25
*At the Aviation Meet at Asbury Park, Aug. 10 to 20th.....	1	3	57
*Heroines Rewarded	2	10–11	246
On Lehigh Valley Private Cars.....	1	3	62
*To Assist in Discovering South Pole.....	1	3	68
The (Poem), by Geo. H. Esler.....	4	4	94
*Maintenance in the N. J. Div., by J. T. Blake	1	3	65
*And National Efficiency, by Herbert N. Casson	1	1	1
	1	2	31
	1	3	49
The (Poem), from *The Optimists' Magazine*	1	5	127
*Operators	1	5	108
Review Proves Helpful.....	4	6	171
Service Here and Abroad—*N. Y. Times* (Ed.) 5-27-13	4	6	169
*System of the Public Service Corporation of New Jersey, by H. B. Fenn.....	1	3	50
*School, The, by Miss K. C. Jones.....	2	3	55
Saves $60,000	3	11	253
Society of New York, The (Central).....	2	1	17
	2	2	43
	3	1	20
	3	10	227
	3	11	263
	4	1	33
	4	2	58
	4	4	117
	4	5	134
	4	6	158
	4	10	263
	4	11	306
	4	12	332
Society of New York, The (Hudson).....	2	6	151
	3	6	131
	3	11	263
	3	12	285
	4	2	58
	4	3	87
	4	4	117
	4	6	158–61
	4	7	179
	4	12	332
Society of New York, The (Metropolitan).	1	2	44
	1	5	118
	1	6	139
	2	1	13
	2	4	102
	2	6	151
	2	9	217
	2	10–11	240

Digitized by Google

	Vol.	No.	Page
Telephone			
Society of New York, The (Metropolitan)..	2	12	270
	3	1	20
	3	2	45
	3	3	70
	3	4	96
	3	6	129
	3	10	227
	3	11	263
	3	12	285
	4	1	33
	4	2	58
	4	3	87
	4	4	117
	4	5	134
	4	6	158-60
	4	10	263
	4	11	306
	4	12	332
Society of New York, The (Western).....	2	12	270
	3	1	20
	3	2	45
	3	4	96
	3	6	131
	3	10	227
	3	11	263
	3	12	285
	4	1	33
	4	2	58
	4	3	87
	4	4	117
	4	5	134
	4	6	158-61
	4	10	263
	4	11	306
	4	12	333
And Weather Reports, The.....	1	1	17
***Telephoning**			
In New York City, The Beginning of, by Herbert N. Casson.....	1	5	97
	1	6	129
	1	7	163
About—*N. Y. Hotel Gazette*.....	4	12	341
Telephony,			
By McMeen and Miller.....	3	4	93
Ten Dollars			
And an Apple (Ed.).....	4	7	178
***Tenements,**			
Telephone Service for Model.....	3	9	218
***Tent Life**			
In the Woods, by J. P. Luger.....	2	7	179
***The Telephone Society**			
Of New York, by D. C. Cox.....	3	6	129
Thanksgiving,			
(Ed.)	4	11	289
Things We're Going To Do,			
The (Poem), by R. F. Franklin.....	3	5	117
Thomas, L. M.,			
*A Canvass for Telephone Service at Richmond Lighthouse	3	9	213
Thorp, I. J.,			
*An Underground Telephone System.....	1	4	75
Plant Department of New Jersey.....	4	1	12
Thoughts,			
Golden	3	2	53
Thurber, H. F.,			
*Impressions of the Year.....	3	1	2
*Address of Mr. Thurber to Western Section of the N. Y. Tel. Society at Buffalo...	3	1	20
***Tickets by Telephone**			
Delivered by Messenger.....	1	3	72
Tighe, B. T.,			
*Freak of the Wind.....	4	12	343
*The North Jersey Shore.....	4	12	323
Time Saver,			
The Greatest—*Pere Marquette Magazine*....	4	10	275
Titanic Disaster,			
Telephone Operator Gives News of the.....	3	5	116
***Toll**			
Board, The New Buffalo, by F. L. Jackson..	4	8	224
Line Trouble and What It Involved, A Case of, by F. L. Flanagan.....	3	2	51
*Lines on Long Island, Building.....	4	11	315
Plant for 1912, Additions to the.....	3	5	127
*Rate Reduction, N. Y. City Interborough..	2	12	264
Tompkins, Gilbert C.,			
*The Recess Club.....	3	1	19
Tonawanda, N. Y......	2	6	159
*New Commercial Office in North, by E. H. Gailor	4	8	210
Tools,			
The Care of, by Charles P. Knudsen.....	4	11	319
Topeka,			
Call from New York to.....	3	11	250
***Tornado,**			
Fire and Flood, Operators and Linemen Bravely Face Death by.....	4	4	95
Touhey, J. E.,			
The Voice With the Smile Wins.....	3	9	213
Town Belle,			
Our (Poem), by R. W. Hains.....	3	1	18
Trade Excursion,			
Bell Telephone on.....	2	10-11	245
Traffic			
Complaints, by G. W. Hoffman.....	4	10	283
*Department, Central Division.....	3	7	159
*Department, The, by E. F. Sherwood.....	3	1	7
Department of Central Division, by H. H. Kennedy	4	1	21
Department of Hudson Division, by E. G. Anderson	4	1	17
Department of New Jersey, by J. C. Lynch..	4	1	14
Department of L. I. Division, by R. H. Boggs	4	1	10
Department of Westchester Div., by G. L. Yates	4	1	8
Department of Manhattan-Bronx, by H. J. Schultz	4	1	5
Department of Western Division, by J. J. Welch	4	1	24
*Work, Efficiency in, by E. F. Sherwood—(Paper read at Meeting of the Telephone Society of New York, March 22, 1911)	2	4	76
*Work in the Western Division.....	2	8	187
*Work, Some Points of Interest in, by R. H. Boggs	3	5	105
***Train**			
Of the Rochester Wholesale Trade Excursion Equipped with Telephone, by W. J. O'Hea	4	7	194
Of Buffalo Trade Excursion Equipped with Bell Telephone	4	7	195
*Dispatching, Western Electric Engineers Develop New Selector for.....	1	2	47
Training School			
For Office and Messenger Boys in Manhattan and Bronx Division.....	1	7	174
***Trains,**			
Telephone Equipment of Troy and Buffalo Publicity	1	1	10
Transfer of Offices			
From N. Y. Tel. Co. to the Bell Tel. Co. of Pennsylvania	1	2	43
***Transmission**			
Efficiency of Long Distance Circuits, Some Recent Advances in, by B. Gherardi..	2	5	105
Of News, The, by S. M. Williams.....	3	3	57
	3	4	95
Transmitter			
Mouthpiece, One Way of Replacing a.....	4	10	282
The (Ed.)	3	12	274
***Traveling Model**			
Of an Ordinary Ringing Circuit.....	4	9	246
***Tree Trimming**	3	9	216
Tremont			
District—N. Y. City.....	1	6	155
	2	5	131
	2	6	159
	2	9	231
	4	2	88
*Local Commercial Office, by P. E. Mahony.	4	12	326
Trials of a Canvasser,			
(Poem)	2	1	11
Tribute to Central,			
A	3	4	93
***Trouble,**			
An Unusual Cable, by A. H. Keteltas.....	4	12	331
Complaint, Analyzing A, by M. A. Cooke....	4	5	141
*Makers, Little	2	3	67
*Statistics, The Value of, by M. Greene.....	1	7	167
***"Troublemen"**			
Who Make Things Right—Plant Inspectors, by W. Kirkbright.....	4	10	277

Digitized by Google

	Vol.	No.	Page
Troy			
And North Troy, N. Y.	2	6	159
	2	7	184
	4	12	334
*And Albany, New Telephone Buildings in..	4	8	221
*And Buffalo, Telephone Equipment of Publicity Trains of	1	1	10
*Early Telephone Equipment in, by P. J. Lumley	4	8	223
***Truck,**			
Unique Auto	2	4	91
***Trucks**			
In Building and Maintaining Telephone Plant, The Use of Power, by A. W. Allen...	3	4	82
Trumansburg, N. Y.	4	3	88
Tuberculosis,			
By Dr. Alvah H. Doty	4	10	280
And the Telephone (Ed.)	3	4	92
Tuckahoe, N. Y.	1	2	42
	1	4	92
	2	5	132
Tug Boat			
And the Telephone, The, by Fred. B. Dalzell, Pres. of National Board of Steam Navigation	3	9	205
Tupper			
Lake Fire, The, by E. R. Stonaher	3	2	41
*Central Office in Buffalo, New	3	7	167
*Exchange, Buffalo, The New—Old Tupper and Bryant Consolidated in New Exchange	4	3	79
Turner, J. L.,			
Acknowledging Operator's Repetition	4	9	256
The Art of Expression as Applied to the Work of the Telephone Operator	2	10–11	236
Turner, F. G.,			
A Letter from London	4	2	42
Tuxedo, N. Y.	1	1	12
Two Systems			
Or One?	2	8	185
Tyler, H. L.,			
Editor of *Ambition*—Letter about Dictating Music by Telephone	4	9	247

U

Underground			
Cable Between Albany and Troy (N. Y.), by R. P. Bunyan	4	2	63
*Telephone System, An, by I. J. Thorp	1	4	75
Union, N. J.	2	1	22
United States,			
Your, from Article by Arnold Bennett	3	7	170
***Uniting the Units**	2	4	104
***Urban Railroad Operation,**			
The Use of the Telephone in, by A. F. Ormsbee	1	7	161
***Useful Book in New York,**			
The Most, from an Article by H. K. McCann, in *Advertising and Selling*	1	1	9
***Utica, N. Y.,**			
New Business Offices at	1	5	122
	1	7	180
*Hotel, New Private Branch Exchange Equipment in, by W. J. Mitchell	3	6	146
Utilities			
Should Be Monopolies, Believes Public—Emerson McMillin	4	2	64
And Public Policy, Public—Summary of Article by T. N. Vail	4	5	138

V

Vacation,			
Back from (Ed.)	4	9	234
Where Will You Spend Your	2	5	136
Vail, Theo. N.,			
Statement Regarding the Mutual Relations and Interests of the Bell System and the Public	4	9	242
On Public Utilities and Public Policy	4	5	138
Statement to the Employees of the A. T. & T. Co. Regarding Pension Plan	4	1	1
Public Opinion	3	1	13
Address at the Commencement Exercises of the Graduating Classes of Lyndon Institute and Lyndon School of Agriculture, Lyndon Center, Vt., June 20, 1913	4	8	216
Value			
Of Telephone Service in Case of Fire	1	2	29
*Of Trouble Statistics, The, by M. Greene..	1	7	167
Of a Telephone, Emergency, by H. D. Cowell	2	1	19
Versatility			
Of Our Salesmen, by J. F. O'Hea	4	9	247
Visiting			
Central Offices (Kingston, N. Y.)	4	5	142
Visitors			
To Central Offices	4	4	120
Voice			
Of a Familiar Friend, The (Ed.)	3	9	202
With the Smile Wins, The, by J. E. Touhey.	3	9	213
Vought, B. S.,			
*Amsterdam	4	10	264
***Vreeland, Francis Wm.,**			
Scene at an Old Oklahoma R. R. Station	4	11	317

W

Wall Street,			
Telephone Habit in—*Wall St. Journal*	4	5	148
Wallace, Miss Ada F.,			
Courtesy	4	6	176
***Walker-Lispenard Building,**			
The Proposed	2	8	204
Wantagh, L. I.	3	10	243
***War,**			
The Telephone in Mexican	2	6	155
Value of the Telephone in	3	10	239
Ward, T. P.,			
*The New Harlem Commercial Office—And the Exchange Districts of Harlem, Morningside and Audubon	4	8	207
Warm Weather			
And How to Deal With It, by Dr. Alvah H. Doty	4	8	214
Warne, H. M.,			
*The Bell Exhibit at Syracuse Automobile Show	2	5	126
Warnke, F. W.,			
*Keeping a Record of Growth	4	7	189
***Washington,**			
Telephone Exhibit at International Welfare Congress in	3	10	226
Water,			
By Dr. Alvah H. Doty	4	4	108
Waterbury, J. A.,			
*The North Jersey Shore	4	12	323
*Asbury Park and Its Telephone Development	2	3	57
***Water Front,**			
The Telephone and the—Tug Boat Despatching, by George Linn, Asst. Mgr., Marine Dept., N. Y. C. & H. R. R. R.	3	9	204
*Telephone Sign on	3	12	282
Waterport, N. Y.	1	7	180
Watertown Results in One System,			
Referendum in	2	3	60
***Watkins,**			
Telephone Improvements in, by A. B. Elias..	2	7	181
Watson, Thos. A.,			
*The Birth and Babyhood of the Telephone.	4	11	290
Waverly, N. Y.	2	1	24
Wax Stencils,			
Reading (Ed.)	3	11	250
Wayne Tel. Co. on the Job			
At Fire at Newark, N. Y.	3	4	100
***Weather,**			
Does It Affect the Telephone Bill? by C. H. Hartzel	2	5	119
And How to Deal With It, Warm, by Dr. Alvah H. Doty	4	8	214
Reports, The Telephone and	1	1	17
Weglein			
Convicted in Court of Special Sessions (Ed.)	1	3	61
Welch, J. J.,			
Traffic Department of Western Division	4	1	24
Welcome Letter,			
A	3	4	93
Welcome Man,			
The (Ed.), The One Who Delivers the Goods	1	7	170
Weldner, W. J.,			
*An Effective Advertisement	4	10	267
Wellsville, N. Y.	1	2	43

Digitized by Google

	Vol.	No.	Page
***Wellsville and Vicinity,**			
A History of the Growth of the Bell System in, and the Formation of the Allegany County Telephone Co	3	7	156
Wellstood, Miss A. W.,			
Saving a Station	4	7	201
Westchester County, N. Y.	2	6	158
Westchester Division,			
Co-operation in the, by A. S. Rossborough	4	12	341
Westchester Interdepartmental Dinner			
At New Rochelle	2	2	42
Westchester News,			
North	1	1	18
Westchester Dinner and Theatre Party,			
The	3	1	22
Westchester Exchange Dist.,			
Bronx	2	9	231
Westchester Village, N. Y.	1	1	13
***Western Division**			
Get Together Day at Erie Beach, Canada	4	8	228
*The Upbuilding of Plant in the	2	9	210
(Rochester) Plant Dept. Give Names of Prospects to Commercial Dept	4	6	151
Plant Department Assists in Promoting Business	3	7	158
*Telephone Service an Important Item at Fairs in	4	10	271
*Traffic Work in the	2	8	187
*The Business of Getting Big Business in the	2	12	257
***Western Electric**			
Engineers Develop New Selector for Train Dispatching	1	2	47
Composite Telephone and Telegraph System for Railway Service	1	5	122
*The Wonders of the, by Herbert N. Casson.	1	4	84
Co. Met Rush Orders in the Middle West, How	4	5	142
Co., a Review of the Telephone, Supply and Foreign Business of	4	4	103
News, Cover Design of	4	4	119
News (Ed.)	3	4	92
***Western N. Y.**			
Has Worst Storm in Years	4	1	29
Western Union			
To Handle Wireless Messages	3	5	114
Westfield, N. J.	1	1	12
	2	7	183
	4	8	218
Westfield			
(N. J.) *Leader* on Telephone Service	4	5	140
West New Brighton, S. I.	1	7	179
What a Shade More Effort Will Do			
(Ed.)	3	9	201
When You "Telephone" To-day			
(Poem), by M. T. Sheahan	3	1	23
White Plains, N. Y.	1	3	70
	2	1	24
White, Wm. J.,			
Reminiscences of an Albany Operator	4	10	275
Wiley, J. S.,			
Accounting Department, The—A discussion of Some Principles and Some Possibilities (Paper Read at Meeting of N. Y. Tel. Society, Nov. 22, 1911)	3	1	25
	3	12	283
Williams, R. S.,			
*Husking Party of the Albany Operators	3	12	299
*The New Operators' Rooms in Albany	2	12	272
Williams, S. M.,			
The Psychology of the Telegraph	1	1	2
The Transmission of News	3	3	57
	3	4	95
Williamsbridge District,			
Manhattan	2	9	231
Willits, Wm. B.,			
The Telephone a Business Getter	3	3	71
Wilson, A. B.,			
*Monmouth County Fair	2	9	231
***Wind Carries Away Telephone Lines,**			
By B. T. Tighe	4	12	343
Window Advertising Displays,			
*Chicago Tel. Co	1	3	68
*Patchogue Local Office, by F. Lightbody	1	6	149
*Hempel's Drug Store, Bath Beach, L. I.	1	7	175
*Horton Drug Store, Hamburg, N. Y.	2	2	45
*Gilbert's Drug Store, Plattsburg, N. Y., by W. H. Schuyler	2	3	68
Window Advertising Displays			
West & Jones Drug Store, Dunkirk, N. Y., by G. H. Bernard	2	5	129
Foster's Drug Store, Newark, N. J., by F. O. Ludlow	2	5	129
*Circle Pharmacy, 60th and B'way, N. Y. City	2	6	153
*Van Stone's Drug Store, Hackensack, N. J., by G. H. Howell	2	6	154
*Hatch Drug Store, Jamestown, N. Y.	2	6	154
*H. S. Ware, New Rochelle, N. Y.	2	7	180
Hegeman & Co., 42d St. and B'way, N. Y. City	2	8	202
*Geo. H. Payson, Englewood, N. J.	2	10–11	246
Rochester Stores, Rochester, N. Y.	2	12	276
Grossett & Dunlap, N. Y. City	2	12	279
Brockport, N. Y.	3	2	49
*Avon, N. Y.	3	2	50
*H. Batterman, Brooklyn, N. Y., by I. H. Wright	3	6	139
*Luckey, Platt & Co., Poughkeepsie, N. Y.	3	9	222
*O'Neill-Adams Co., N. Y. City	4	7	195
*Western Div. Local Offices	4	9	246
*H. S. Barney Co., Schenectady, N. Y.	4	9	257
*Brockport Commercial Office, Brockport, N. Y., by D. V. Bradley	4	11	316
*Perry Telephone Co., Perry, N. Y., by R. S. Baker	4	12	342
Window Displays			
(Ed.)	2	7	172
Winning Friends by Telephone			
(Ed.)	3	3	69
Wire Chief and Chief Operators,			
Co-operation Which Should Exist Between, by W. J. Mooney	2	8	207
Wire Chiefs' Forces,			
New Plant Instruction Book for	2	7	172
Wire Chief's Dream,			
The (Poem), from *Southern Electrician*	1	1	15
Wireless Message,			
Telephoning a	2	5	128
Wireless Messages,			
Western Union to Handle	3	5	114
Wiring Plans,			
Common Battery, Chart of	1	2	28
For Subscribers' Stations, Standard	1	2	27
Wollmuth, E. W.,			
The Telephone at the Staten Island Fair	2	9	222
Wollmuth, R. J.,			
Telephone Talk at Richmond Hill	1	1	18
Woman Who Succeeds by Telephone,			
A Real Business	3	12	287
***Woman, The,**			
Talking from New York to Chicago	3	3	60
***Woman's Industrial Exhibition,**			
The Second—Telephone Booth at	4	3	83
Telephone Exhibit at	3	4	102
***Wonders of the Western Electric,**			
The, by Herbert N. Casson	1	4	84
Wonders,			
The World's	3	7	163
Of the Telephone, The, by Herbert N. Casson —in *The Mountain States Monitor*	4	8	230
Woodbridge, N. J.	4	8	218
***World,**			
Telephone Industry of the	1	2	25
Uses 12,318,000 Telephones, The, by Garrett P. Serviss, in N. Y. *Evening Journal*	4	12	335
Write Us Direct			
(Ed.)	4	6	151
	4	7	177
Wright, I. H.,			
*Window Display of N. Y. Tel. Co	3	6	139
Writing for The Telephone Review			
(Ed.)	2	10–11	244
Wrongly Censured for Doing Right			
(Ed.)	4	9	233

Y

Yates, G. L.,			
Traffic Department of Westchester Div	4	1	8
Yonkers, N. Y.	1	3	70
	3	7	175
Yonkers' City Hall,			
By E. R. Chamberlain	2	6	157
Youngstown, N. Y.	4	8	218
Your United States,			
From Article by Arnold Bennett	3	7	170

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

32101 064640145

Digitized by Google

Digitized by Google